



Colorado Department
of Public Health
and Environment

OPERATING PERMIT

Public Service Company of Colorado – Cherokee
Station

First Issued: February 1, 2002

Renewed: April 1, 2010

Last Revised: February 10, 2014

AIR POLLUTION CONTROL DIVISION

COLORADO OPERATING PERMIT

FACILITY NAME: Cherokee Station

OPERATING PERMIT NUMBER

FACILITY ID: 0010001

RENEWED: April 1, 2010

EXPIRATION DATE: April 1, 2015

MODIFICATIONS: See Appendix F of Permit

96OPAD130

Issued in accordance with the provisions of Colorado Air Pollution Prevention and Control Act, 25-7-101 et seq. and applicable rules and regulations.

ISSUED TO:

Public Service Company of Colorado
1800 Larimer Street, Suite 1300
Denver, CO 80202

PLANT SITE LOCATION:

6198 Franklin Street
Denver, CO 80216
Adams County

INFORMATION RELIED UPON

Operating Permit Renewal Application

Received: January 6, 2006

And Additional Information Received: June 3 and December 3, 2009

Nature of Business: Coal-Fired Electric Generating Station

Primary SIC: 4911

RESPONSIBLE OFFICIAL

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SUBMITTAL DEADLINES

First Semi-Annual Monitoring Period: April 1 – June 30

Subsequent Semi-Annual Monitoring Periods: July 1 – December 31, January 1 – June 30

Semi-Annual Monitoring Report: Due on Aug. 1, 2010 & Feb. 1, 2011 & subsequent years

First Annual Compliance Period: April 1 – December 31

Subsequent Annual Compliance Periods: January 1 – December 31

Annual Compliance Certification: due on February 1, 2011 & subsequent years

Note that the Semi-Annual Monitoring Reports and Annual Compliance Certifications must be received at the Division office by 5:00 p.m. on the due date. Postmarked dates will not be accepted for the purposes of determining the timely receipt of those reports/certifications.

FOR ACID RAIN SUBMITTAL DEADLINES SEE SECTION III.4 OF THIS PERMIT

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SECTION I - General Activities and Summary

1. Permitted Activities

- 1.1 This facility is an electric generating facility. Electricity is produced through two coal-fired boilers. Although coal is the primary fuel burned, these units use natural gas as a back-up fuel. Unit 3 is a 168 MW boiler that is equipped with a baghouse, low NO_x burners with over-fire air and a lime spray dryer system to control SO₂ emissions. Unit 4 is a 388 MW boiler that is equipped with a baghouse, low NO_x burners with over-fire air and a lime spray dryer system. Note that two coal fired boilers were recently retired at this facility: Unit 1, a 115 MW unit last operated on April 30, 2012 and Unit 2, a 114 MW unit last operated on October 15, 2011.

Other emission sources at Cherokee include fugitive emissions from coal handling and storage, ash handling and disposal and from traffic on paved and/or unpaved roads. Finally, Cherokee station has point source emissions from the five (5) ash silos, one (1) ash blower system, two (2) coal crushers, the coal conveying system, three (3) sodium reagent silos, four (4) cooling water towers and two (2) service water towers, two (2) emergency generators, one (1) emergency fire pump engine, one (1) aboveground gasoline storage tank and a Safety Kleen cold cleaner solvent vat. In order to support the lime spray dryer systems on Units 3 and 4, two (2) lime storage silos, two (2) ball mill slakers and two (2) recycle mixers were added to the facility. In addition, Public Service Company of Colorado (PSCo) entered into a Voluntary Emissions Reduction Agreement with the Division. The provisions of the agreement became effective on January 1, 2003 and the appropriate provisions of that agreement have been included in this permit.

The facility is located at 6198 Franklin Street in Adams County, within the Denver metro area. The Denver Metro Area is classified as attainment/maintenance for particulate matter less than 10 microns in diameter (PM₁₀) and carbon monoxide (CO). Under that classification, all SIP-approved requirements for PM₁₀ and CO will continue to apply in order to prevent backsliding under the provisions of Section 110(l) of the Federal Clean Air Act. The Denver metro area is classified as non-attainment for ozone and is part of the 8-hr Ozone Control Area as defined in Colorado Regulation No. 7, Section II.A.1.

There are no affected states within 50 miles of the plant. Rocky Mountain National Park and Eagle's Nest National Wilderness Area, both Federal Class I designated area, is within 100 kilometers of the plant.

- 1.2 Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air pollutants from this facility in accordance with the requirements, limitations, and conditions of this permit.
- 1.3 This Operating Permit incorporates the applicable requirements contained in the underlying construction permits, and does not affect those applicable requirements, except as modified during review of the application or as modified subsequent to permit issuance using the modification procedures found in Regulation No. 3, Part C. These Part C procedures meet all

applicable substantive New Source Review requirements of Part B. Any revisions made using the provisions of Regulation No. 3, Part C shall become new applicable requirements for purposes of this operating permit and shall survive reissuance. This Operating Permit incorporates the applicable requirements (except as noted in Section II) from the following Colorado Construction Permit(s): 86AD352-2, 97AD0455, 98AD0119, 00AD0570, 00AD0810, 00AD0811, 00AD0812, 00AD0813 and 00AD0833.

- 1.4 All conditions in this permit are enforceable by US Environmental Protection Agency, Colorado Air Pollution Control Division (hereinafter Division) and its agents, and citizens unless otherwise specified. State-only enforceable conditions are: Permit Condition Number(s): Section II – Condition 1.16 (Mercury), Condition 15 (Voluntary Emissions Reduction Agreement) and Section V - Conditions 3.g (last paragraph), 14 and 18 (as noted).
- 1.5 All information gathered pursuant to the requirements of this permit is subject to the Recordkeeping and Reporting requirements listed under Condition 22 of the General Conditions in Section V of this permit. Either electronic or hard copy records are acceptable.

2. Alternative Operating Scenarios

- 2.1 The permittee shall be allowed to make the following changes to its method of operation without applying for a revision of this permit.
 - 2.1.1 The facility may burn the following fuels in Boilers No. 3 and No. 4:
 - 2.1.1.1 The facility may burn coal as specified under Section II.
 - 2.1.1.2 The facility may burn natural gas as specified under Section II.
 - 2.1.1.3 The facility may burn any combination of the fuels identified under conditions 2.1.1.1 and 2.1.1.2 as specified under Section II.
 - 2.1.2 Evaporation of chemical cleaning solutions may be performed in Boilers No. 1, No. 2, No. 3 and No. 4 under the following conditions:
 - 2.1.2.1 All air pollution control equipment shall be in operation during evaporation of cleaning solutions.
 - 2.1.2.2 The permittee shall retain records, on site, of each cleaning event. These records shall include the date and time the event begins and ends and the amounts and types of solutions used in the cleaning event.
- 2.2 The facility must, contemporaneously with making a change from one operating scenario to another, maintain records at the facility of the scenario under which it is operating (Colorado Regulation No. 3, Part A, Section IV.A.1). Either electronic or hard copy records are acceptable.

3. Nonattainment Area New Source Review (NANSR) and Prevention Of Significant Deterioration (PSD)

- 3.1 This facility is categorized as a NANSR major stationary source for ozone (Potential to Emit of VOC and NO_x ≥ 100 tons/year). Future modifications at this facility resulting in a significant net emissions increase (see Regulation No. 3, Part D, Sections II.A.26 and 42) for VOC or NO_x or a modification which is major by itself (Potential to Emit ≥ 100 tons/year of either VOC or NO_x) may result in the application of the NANSR review requirements.
- 3.2 This source is categorized as a PSD major stationary source (Potential to Emit ≥ 100 tons/year) for PM, PM₁₀, SO₂, NO_x CO and VOC. Future modifications at this facility resulting in a significant net emissions increase (see Regulation No. 3, Part D, Sections II.A.26 and 42) or a modification that is major by itself (Potential to Emit ≥ 100 tons/yr) for any pollutant listed in Regulation No. 3, Part D, Section II.A.42 for which the area is in attainment or attainment/maintenance may result in the application of the PSD review requirements.
- 3.3 There are no other Operating Permits associated with this facility for purposes of determining the applicability or non-applicability of NANSR and PSD regulations.

4. Accidental Release Prevention Program (112(r))

- 4.1 Based upon the information provided by the applicant, this facility is not subject to the provisions of the Accidental Release Prevention Program (section 112(r) of the Federal Clean Air Act).

5. Compliance Assurance Monitoring (CAM)

- 5.1 The following emission points at this facility use a control device to achieve compliance with an emission limitation or standard to which they are subject and have pre-control emissions that exceed or are equivalent to the major source threshold. They are therefore subject to the provisions of the CAM program as set forth in 40 CFR Part 64, as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV:

B003 - Unit 3 Boiler
B004 – Unit 4 Boiler

See Section II, Condition 1.15 for compliance assurance monitoring requirements.

6. Summary of Emission Units

6.1 The emissions units regulated by this permit are the following:

Emission Unit No./ Facility ID	AIRS Point Number	Description	Startup Date	Pollution Control Device
B003	003	Boiler No. 3 (Unit 3), Babcock and Wilcox, Model No. RB344, Serial No. NY-771802, Front-Fired Boiler, Rated at 1,877 MMBtu/hr. Coal, Natural Gas or Combination Fired.	April 1962 Baghouse February 1988 LNB-OFA 1991 LSD August 2002	PM - Envirotech Buell Baghouse NO_x - LNB-OFA SO₂ - Lime Spray Dryer (LSD)
B004	004	Boiler No. 4 (Unit 4), Combustion Engineering, Model No. 12465, Serial No. C400016, Tangentially Fired Boiler, Rated at 3,520 MMBtu/hr. Coal, Natural Gas or Combination Fired.	November 1968 Baghouse 1989 DSI 1989 LNB-OFA - 1990 LSD (replaced DSI) December 2002	PM - GE Environmental Systems Baghouse, Model No. CRA2-6-34.0(12)-25.10(2-24)-2.6p NO_x - LNB-OFA SO₂ - LSD
E001	017	General Motors Internal Combustion Reciprocating Engine, Model No. 20-645E4, Serial No. 67-H1-1127, Rated at 3,600 hp, Diesel Fuel-Fired Emergency Generator	1998	Uncontrolled
E002	006	General Motors Internal Combustion Reciprocating Engine, Model No. 20-645E4, Serial No. 67-H1-1080, Rated at 3,600 hp, Diesel Fuel-Fired Emergency Generator	Prior to February 1, 1972	Uncontrolled
F001	009	Fugitive Particulate Emissions from Coal Handling and Storage (Railcar Unloading, Storage Pile and Coal Dozing)	August 1957 – November 1968	Uncontrolled
F002	010	Fugitive Particulate Emissions from Ash Handling and Disposal	August 1957 – November 1968	Uncontrolled
F003	014	Fugitive Particulate Emissions from Paved and Unpaved Roads	August 1955	Uncontrolled
P001 thru P003	010	Three (3) Grandfathered Ash Silos	August 1957 – November 1968	Baghouses
P006 and P007	018 and 023	Two (2) Permitted Ash Silos	December 2001 (Unit 4 silo) May 2002 (Unit 2 silo)	Baghouses
P008	022	Unit 3 Ash Blower System	April 2002	Uncontrolled

Emission Unit No./ Facility ID	AIRS Point Number	Description	Startup Date	Pollution Control Device
P004	009	Coal Handling System (Conveyors and Two (2) Crushers)	August 1957 – November 1968	Enclosed - Conveyors Covered and Crushers in Buildings
P005	016	Three (3) Dry Sodium Reagent Silos	1998 (Unit 1) 2002 (Unit 2) 2002 (common)	Baghouses
M001	015	Four (4) Cooling Towers and Two (2) Service Water Towers	August 1955 – November 1968	Drift Eliminator
T001	024	Gasoline Aboveground Storage Tank (1,000 gal)		Stage I Vapor Control System and Submerged Fill Pipe
P009	019	Two (2) Lime Storage Silos	August 2002	Each with a Flex-Kleen, Model 30-PVB1-9-PRRIIG Baghouse
P010	020	Two (2) Ball Mill Slakers	August 2002	Each with a Chemco/Quickdraft, Custom Model No. Q5CA-1½ Scrubber with Blower Rated at 450 acfm
P011	021	Two (2) Recycle Mixers	August 2002	Each with a Chemco/Quickdraft Custom Built Scrubber with Blower Rated at 450 acfm
E003	027	Cummins, Model No. CFG9E-F20, Diesel Fuel-Fired Internal Combustion Engine, Rated at 282 hp and 14.6 gal/hr. Serial No. 73335121. This Engine Drives an Emergency Fire Pump.	September 2012	Uncontrolled
M002	N/A	Safety Kleen Cold Cleaner Solvent Vat		Uncontrolled

SECTION II - Specific Permit Terms

1. B003 and B004 - Boilers No. 3 (Unit 3) and No. 4 (Unit 4), Coal Fired

Unless otherwise specified the requirements apply to each boiler

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
Particulate Matter (PM)	1.1.	0.1 lbs/MMBtu		N/A	Baghouse Maintenance and Source Testing	See Condition 1.1
Particulate Matter (PM and PM ₁₀) - Emission Calculations	1.2.	N/A	N/A	Unit 3 – 0.003 lb/MMBtu Unit 4 – 0.0033 lb/MMBtu	Calculation and Recordkeeping	Annually
SO ₂	1.3	1.1 lbs/MMBtu, on a 3-Hour Rolling Average		N/A	Continuous Emission Monitor	Continuous, 3-Hour Rolling Average
SO ₂ – Unit 4 Only	1.4.	0.88 lbs/MMBtu, on a 30-Day Rolling Average Limitation Applies From November 1 – March 1		N/A	Continuous Emission Monitor	Continuous, 30-Day Rolling Average
SO ₂ - Unit 4 Only	1.5.	Total SO ₂ Emissions from Unit 4 Shall be Reduced by 20%, Calculated on a Calendar Year Basis		N/A	See Condition 1.5.	
NO _x	1.6.	Unit 3 - 0.60 lbs/MMBtu Unit 4 - 0.45 lbs/MMBtu All on a 30-day Rolling Average		N/A	Continuous Emission Monitor	Continuous, 30-Day Rolling Average
Emission Calculations	1.7.	N/A	N/A	in lbs/ton SO ₂ CEM NO _x CEM CO 0.50 VOC 0.06	Recordkeeping and Calculation	Annually
Coal Usage	1.8.	N/A	N/A	N/A	Recordkeeping	Annually
Coal Sampling	1.9.	N/A	N/A	N/A	ASTM Methods	See Condition 1.9.
Continuous Emission Monitoring Requirements	1.10.	N/A	N/A	N/A	See Condition 1.10.	

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
Lead (PB)	1.11.	N/A	N/A	See Condition 1.11.	Recordkeeping and Calculation	Annually
Opacity	1.12.	Not to Exceed 20% Except as Provided for in 1.13 Below		N/A	Continuous Opacity Monitor	Continuous, Six-Minute Intervals
Opacity	1.13.	For Certain Operational Activities - Not to Exceed 30% for a Period or Periods Aggregating More than Six (6) Minutes in Any 60 Consecutive Minutes		N/A	Continuous Opacity Monitor	Continuous, Six-Minute Intervals
Acid Rain Requirements	1.14.	See Section III of this Permit			Certification	Annually
Compliance Assurance Monitoring Requirements	1.15.	See Condition 1.15.			See Condition 1.15.	
Mercury (Hg) – State Only	1.16	Each Unit is a Low Emitter (LE) - Hg emissions no more than 29 lbs/yr		N/A	Performance Testing	Annual or Semi-Annual Depending on Results
Regional Haze Requirements	1.17	Shutdown Unit 3 by 12/31/2016 Switch Unit 4 to Natural Gas Only by 12/31/2017		N/A	See Condition 1.17	
		Metro Units SO ₂ Emission Limitations: 1/1/2013 thru 12/31/2015: 4,200 tons/yr 1/1/2016 thru 12/31/2017: 3,450 tons/yr				
MACT Subpart UUUUU Compliance Dates	1.18	Unit 3 - April 16, 2016 (Unit 3 must shutdown by the extended compliance date) Unit 4 – April 16, 2015		N/A	See Condition 1.18	

1.1 Particulate Matter (PM) emissions, **from each unit**, shall not exceed the limitation stated above (Colorado Regulation No. 1, Section III.A.1.c and Colorado Construction Permits 86AD352-2 (Unit 4)). Compliance with this standard shall be monitored as follows:

1.1.1 Maintaining and Operating the baghouse in accordance with the requirements identified in Condition 9.1.

1.1.2 Conducting performance tests annually in accordance with Condition 9.3.

During each of the performance tests conducted as required by this condition, a baseline opacity limit shall be established for the compliance assurance monitoring (CAM) requirements specified in Condition 1.15. The value of the baseline opacity level is determined by averaging all of the 6-minute average opacity values (reported to the nearest 0.1 percent opacity) from the COMS measurement recorded during each of the test run intervals conducted for the performance test, and then adding the appropriate percent opacity (see table below) to the calculated average value for all of the test runs.

Results of PM performance test	Opacity to add-on
Less than or equal to 50% of the PM standard	5.0 %
Greater than 50% but less than or equal to 75 % of the PM standard	3.5 %
Greater than 75% of the PM standard	2.5 %

If the calculated opacity value (COMS average plus add-on) is less than 5.0 percent, then the opacity baseline level is set at 5.0 percent.

Initial performance tests were conducted in August (Unit 3) and September (Unit 4) 2010 and the baseline opacity level has been set at the levels specified in Condition 1.15.1.2.

The permittee shall submit the proposed baseline opacities determined from any subsequent performance tests for Division approval and begin monitoring under the new baselines within 45 calendar days of the test. Subsequent proposed baseline opacity submittals shall include the information specified in the above paragraph, including the minor modification to revise the permit to reflect the revised indicator ranges for the 24-hr average opacities.

1.1.3 Following the compliance assurance monitoring requirements specified in Condition 1.15.

1.2 Annual emissions of PM and PM₁₀, **from each unit**, for the purposes of APEN reporting and payment of annual fees will be determined using the emission factor for PM determined from the most recent source testing required in Condition 1.1 and the annual heat input to each boiler in the following equation:

$$\text{PM: Tons/yr} = \frac{[\text{EF (lbs/MMBtu)} \times \text{annual heat input (MMBtu/yr)}]}{2000 \text{ lbs/ton}}$$

$$\text{PM}_{10}: \text{ Tons/yr} = 0.92 \times (\text{Annual Emissions of PM})$$

The annual heat input to each boiler, from coal, shall be determined using the annual coal consumption and the average heat content of the coal, as determined by the required fuel sampling in Condition 1.9.

- 1.3 Sulfur Dioxide (SO₂) emissions, **from each unit**, shall not exceed 1.1 lbs/MMBtu on a 3 hour rolling average (Colorado Regulation No. 1, Section VII.A.1). Compliance with this standard shall be monitored using the continuous emission monitors (CEM) required by Condition 1.10 of this permit.
- 1.4 Sulfur Dioxide (SO₂) emissions **from Unit 4** shall not exceed 0.88 lbs/MMBtu, based on a 30-day rolling average. Such emission limit shall apply seasonally from November 1 through March 1 (Colorado Regulation No. 1, Section VII.A.1.c). Compliance with the SO₂ limitations shall be monitored using the continuous emission monitors (CEM) required by Condition 1.10 of this permit.
- 1.5 Sulfur Dioxide (SO₂) emissions, **from Unit 4**, shall be reduced by 20% (Colorado Construction Permit 86AD352-2, as modified under the provisions of Section I, Condition 1.3 to change the requirement from "24 tons plus 20% reduction" to "20% reduction" and to clarify the calculation methodology (modification made with initial issuance 2/1/02) and to specify the 20% reduction applies solely to Unit 4 (modification made with December 26, 2012 modification, in accordance with the November 7, 2012 application to remove Unit 1 from the permit). Compliance with these requirements shall be monitored using the following equation:

$$100\% \times \frac{[\text{Annual inlet SO}_2 \text{ emission rate (lbs/MMBtu)} - \text{Annual outlet SO}_2 \text{ emission rate (lbs/MMBtu)}]}{\text{Annual inlet SO}_2 \text{ emission rate (lbs/MMBtu)}}$$

The annual outlet SO₂ emission rate shall be determined using the continuous emission monitoring system (CEMS) required by Condition 1.10 in the following equation:

$$\text{Lbs/MMBtu} = \frac{\text{SO}_2 \text{ emissions (from CEMS in tons/yr)} \times 2000 \text{ lbs/ton}}{\text{Heat input (from CEMS in MMBtu/yr)}}$$

The heat input from coal shall be calculated using the following equations:

Unit Monthly heat input, coal:

$$\text{MMBtu/mo} = \frac{\text{coal burned (tons/mo)} \times \text{avg heat content of coal (Btu/lb)} \times 2000 \text{ lbs/ton}}{10^6 \text{ Btu/MMBtu}}$$

Annual heat input, coal = Sum of monthly heat input, coal

The annual inlet SO₂ emission rate shall be determined using the following equations:

Monthly SO₂ emission rate:

$$\text{Lbs/MMBtu} = \frac{(10^6 \text{ Btu/MMBtu}) \times (64 \text{ lbs SO}_2/32 \text{ lbsS}) \times \text{avg. S content of coal (lbs S/lb coal)}}{\text{avg heat content of coal (Btu/lb coal)}}$$

Monthly SO₂ emissions:

$$\text{Tons/mo} = \text{Monthly SO}_2 \text{ emission rate} \times \text{Monthly coal heat input} \times 1 \text{ ton}/2000 \text{ lbs}$$

Annual SO₂ emissions = Sum of monthly SO₂ emissions

$$\text{Annual SO}_2 \text{ emission rate} = \frac{\text{Annual SO}_2 \text{ emissions (tons/yr)} \times 2000 \text{ lbs/1 ton}}{\text{Annual heat input, coal (MMBtu/yr)}}$$

Note that if for any calendar year, the percent reduction is calculated to be 35% or less the percent reduction will be recalculated using the following emission factor (EPA's Compilation of Emission Factors (AP-42), dated September 1998, Section 1.1) in the following equation to determine the monthly inlet SO₂ emission rate, from each unit:

$$\text{Inlet SO}_2 \text{ emission rate} = \frac{35 \text{ (lbs SO}_2\text{/ton)} \times \text{avg. wt percent sulfur in coal} \times 10^6 \text{ Btu/MMBtu}}{\text{Avg. heat content coal (Btu/lb)} \times 2000 \text{ lbs/ton}}$$

Note that the average heat and sulfur content of the coal shall be determined by the required fuel sampling in Condition 1.9. The average heat and sulfur content used in the monthly calculations shall be based on vendor sample results from all shipments of coal received over the month.

Quarterly emission summaries for the first three quarters shall be submitted to the Division listing the SO₂ emissions. An annual compliance demonstration report shall be submitted at the end of the year. These reports shall be due 30 days after the end of the given quarter.

- 1.6 Nitrogen Oxide emissions shall not exceed 0.60 lbs/MMBtu **for Unit 3** and 0.45 lbs/MMBtu **for Unit 4**, both calculated as 30-day rolling averages (Colorado Regulation No. 1, Section VII.A.1).

Compliance with the NO_x limitations shall be monitored using the continuous emission monitors (CEMS) required by Condition 1.10.

- 1.7 The emission factors listed above have been approved by the Division and shall be used to calculate emissions from the boilers (EPA's Compilation of Emission Factors (AP-42), dated September 1998, Section 1.1). Annual emissions, **from each unit**, for the purposes of APEN reporting and the payment of annual fees shall be calculated using the above emission factors and the annual coal usage, as required by Condition 1.8, in the following equation:

$$\text{Tons/yr} = \frac{[\text{EF (lbs/ton)} \times \text{annual coal usage (tons/yr)}]}{2000 \text{ lbs/ton}}$$

Annual emissions of SO₂ and NO_x shall be determined from the Continuous Emission Monitors (CEMs) required by Condition 1.10.

- 1.8 Coal Usage, **for each unit**, shall be recorded annually and maintained to be made available to the Division upon request. Coal usage shall be determined using belt scales and corporate records as necessary.
- 1.9 Coal shall be sampled in accordance with the requirements identified in Condition 13. Vendor sample results from all coal shipments shall be used to determine the average heat, sulfur, ash and moisture content of the coal used in monitoring compliance with permit conditions.

- 1.10 **For each unit**, the source shall install, certify and operate continuous emission monitoring (CEM) equipment for measuring opacity, SO₂, NO_x (including diluent gas either CO₂ or O₂), CO₂, and volumetric flow (40 CFR Part 75). The CEM systems shall meet the requirements in Condition 10. The continuous opacity monitoring systems **on Unit 4** shall be located such that any bypasses are monitored (Colorado Construction Permits 86AD352-2).
- 1.11 Annual emissions for the purposes of APEN reporting and the payment of annual fees shall be calculated as required by Condition 12.2.
- 1.12 Compliance with this standard shall be demonstrated in accordance with the requirements in Condition 11.1.
- 1.13 Compliance with this standard shall be demonstrated in accordance with the requirements in Condition 11.2.
- 1.14 These units are subject to the Title IV Acid Rain Requirements. As specified in 40 CFR Part 72.72(b)(1)(viii), the acid rain permit requirements shall be a complete and segregable portion of the Operating Permit. As such the requirements are found in Section III of this permit.
- 1.15 The Compliance Assurance Monitoring (CAM) requirements in 40 CFR Part 64, as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV, apply to Boilers 1 (Unit 1) through Boiler 4 (Unit 4) with respect to the particulate matter limitations identified in Condition 1.1 as follows:
- 1.15.1 The permittee shall follow the CAM Plan provided in Appendix H of this permit. Excursions, for purposes of reporting are as follows:
- 1.15.1.1 An opacity value greater than 15% occurring for 60 seconds or more; or
- 1.15.1.2 Any 24-hour period in which the average opacity exceeds the baseline level established by the performance test required by Condition 1.1.2; or
- The baseline opacities set by the August and September 2010 performance tests required by Condition 1.1.2 are as follows: Unit 3 – 6.5% and Unit 4 – 8.1%. These values serve as the baseline opacity until the next required performance tests as specified in Condition 1.1.2.
- 1.15.1.3 Failure to perform the semi-annual internal baghouse inspection within 60 days of the scheduled completion date.
- Excursions shall be reported as required by Section V, Conditions 21 and 22.d of this permit.
- 1.15.2 Operation of Approved Monitoring
- 1.15.2.1 At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine

repairs of the monitoring equipment (40 CFR Part 64 § 64.7(b), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

- 1.15.2.2 Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of these CAM requirements, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions (40 CFR Part 64 § 64.7(c), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

1.15.2.3 Response to excursions or exceedances

- a. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable (40 CFR Part 64 § 64.7(d)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- b. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and

maintenance procedures and records, and inspection of the control device, associated capture system, and the process (40 CFR Part 64 § 64.7(d)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

- 1.15.2.4 After approval of the monitoring required under the CAM requirements, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the Division and, if necessary submit a proposed modification for this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters (40 CFR Part 64 § 64.7(e), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

1.15.3 Quality Improvement Plan (QIP) Requirements

- 1.15.3.1 Based on the results of a determination made under the provisions of Condition 1.15.2.3.b, the Division may require the owner or operator to develop and implement a QIP (40 CFR Part 64 § 64.8(a), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 1.15.3.2 The owner or operator shall maintain a written QIP, if required, and have it available for inspection (40 CFR Part 64 § 64.8(b)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 1.15.3.3 The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:
- a. Improved preventative maintenance practices (40 CFR Part 64 § 64.8(b)(2)(i), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
 - b. Process operation changes (40 CFR Part 64 § 64.8(b)(2)(ii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
 - c. Appropriate improvements to control methods (40 CFR Part 64 § 64.8(b)(2)(iii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

- d. Other steps appropriate to correct control performance (40 CFR Part 64 § 64.8(b)(2)(iv), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
 - e. More frequent or improved monitoring (only in conjunction with one or more steps under Conditions 1.15.3.3.a through d above) (40 CFR Part 64 § 64.8(b)(2)(v), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
 - 1.15.3.4 If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the Division if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined (40 CFR Part 64 § 64.8(c), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
 - 1.15.3.5 Following implementation of a QIP, upon any subsequent determination pursuant to Condition 1.15.2.3.b, the Division or the U.S. EPA may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:
 - a. Failed to address the cause of the control device performance problems (40 CFR Part 64 § 64.8(d)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV); or
 - b. Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions (40 CFR Part 64 § 64.8(d)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
 - 1.15.3.6 Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the federal clean air act (40 CFR Part 64 § 64.8(e), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 1.15.4 Reporting and Recordkeeping Requirements
 - 1.15.4.1 Reporting Requirements: The reports required by Section V, Condition 22.d, shall contain the information specified in Appendix B of the permit and the following information, as applicable:
 - a. Summary information on the number, duration and cause (including unknown cause, if applicable), for monitor downtime incidents (other than downtime associated with zero and span or

other daily calibration checks, if applicable) ((40 CFR Part 64 § 64.9(a)(2)(ii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV); and

- b. The owner or operator shall submit, if necessary, a description of the actions taken to implement a QIP during the reporting period as specified in Condition 1.15.3 of this permit. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring (40 CFR Part 64 § 64.9(a)(2)(iii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

1.15.4.2 General Recordkeeping Requirements: In addition to the recordkeeping requirements in Section V, Condition 22.a through c.

- a. The owner or operator shall maintain records of any written QIP required pursuant to Condition 1.15.3 and any activities undertaken to implement a QIP, and any supporting information required to be maintained under these CAM requirements (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions) (40 CFR Part 64 § 64.9(b)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- b. Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements (40 CFR Part 64 § 64.9(b)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

1.15.5 Savings Provisions

- 1.15.5.1 Nothing in these CAM requirements shall excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the federal clean air act. These CAM requirements shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purposes of determining the monitoring to be imposed under separate authority under the federal clean air act, including monitoring in permits issued pursuant to title I of the federal clean air act. The purpose of the

CAM requirements is to require, as part of the issuance of this Title V operating permit, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of CAM (40 CFR Part 64 § 64.10(a)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

1.15.5.2 Nothing in these CAM requirements shall restrict or abrogate the authority of the U.S. EPA or the Division to impose additional or more stringent monitoring, recordkeeping, testing or reporting requirements on any owner or operator of a source under any provision of the federal clean air act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable (40 CFR Part 64 § 64.10(a)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

1.15.5.3 Nothing in these CAM requirements shall restrict or abrogate the authority of the U.S. EPA or the Division to take any enforcement action under the federal clean air act for any violation of an applicable requirement or of any person to take action under section 304 of the federal clean air act (40 CFR Part 64 § 64.10(a)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

1.16 **State-Only Requirements:** These units are subject to the Standards of Performance for Coal-Fired Electric Steam Generating Units in Colorado Regulation No. 6, Part B, Section VIII, as follows:

1.16.1 **Each unit** is currently considered a Low Emitter (LE), since actual emissions are no more than 29 pounds per year of mercury (Hg). Continuing LE status shall be verified as follows:

1.16.1.1 **Unit 3** shall be routinely tested to verify LE status as follows (Colorado Regulation No. 6, Part B, Section VIII.B.10):

- a. If actual emissions are less than or equal to 14 pounds of mercury per year, the source shall conduct performance testing on the unit annually using Division-approved methodology.
- b. If actual emissions are greater than 14 pounds but less than or equal to 29 pounds of mercury per year, the source shall conduct performance testing on the unit every six months using Division-approved methodology.

1.16.1.2 **For Unit 4**, the permittee shall use a Hg continuous emission monitoring system (CEMS) to verify that actual emissions of Hg are no more than 29 pounds per year. The Hg CEMS shall meet the requirements in Colorado Regulation No. 6, Part B, Section VIII.E.2

1.16.2 The source shall submit written quarterly reports to the Division within 30 days of the end of each calendar quarter. The quarterly reports required shall include the

following (Colorado Regulation No. 6, Part B, Section VIII.E.3.c, d and e (Unit 4 only)):

1.16.2.1 The lbs/yr of mercury emitted for each calendar quarter and within 30 days of the end of each calendar year, the pounds emitted for the prior year.

1.16.2.2 The unit's operating hours for that quarter.

1.16.2.3 **For Unit 4**, total and percentage of monitoring system downtime for that quarter.

1.17 These units are subject to the following Regional Haze Requirements:

1.17.1 The following units shall shutdown or switch to natural gas as follows (Colorado Regulation No. 3, Part F, Section VI.C.2):

1.17.1.1 Unit 3 shall shutdown no later than December 31, 2016.

1.17.1.2 Unit 4 shall switch to natural gas no later than December 31, 2017.

1.17.2 In addition to the above, the following SO₂ emission limitations apply (Colorado Regulation No. 3, Part G, Section IV.C.4):

1.17.2.1 Between January 1, 2013 and December 31, 2015, Cherokee Units 3 and 4 and Valmont Unit 5, as a whole, shall not emit in excess of 4,200 tons per year of SO₂ as determined on a calendar year annual basis.

1.17.2.2 Between January 1, 2016 and December 31, 2017, Cherokee Unit 4 and Valmont Unit 5, as a whole, shall not emit in excess of 3,450 tons per year of SO₂ as determined on a calendar year annual basis.

Emissions from Units 3 and 4 shall be determined using the SO₂ continuous emissions monitoring systems required by Condition 1.10 of this permit. Emissions from Valmont Unit 5 shall be determined using the SO₂ continuous emissions monitoring systems required by Operating Permit 96OPBO131.

1.18 These units are subject to the requirements in 40 CFR Part 63 Subpart UUUUU, "National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units". These units are required to comply with the requirements in 40 CFR Part 63 Subpart UUUUU, as follows:

1.18.1 Unit 3: April 16, 2016. The permittee requested and the Division approved an extension to the compliance date for Unit 3 as provided for in 40 CFR Part 63 Subpart A § 63.6(i)(4)(i)(A). As required by § 63.6(i)(4)(i)(A), the compliance extension and the conditions under which the compliance extension have been granted are included in this permit and are as follows:

1.18.1.1 The compliance extension for Unit 3 has been granted under the condition

that Unit 3 must shut down by April 16, 2016.

1.18.2 Unit 4: April 16, 2015 (§ 63.9984(b))

The requirements in 40 CFR Part 63 Subpart UUUUU that apply to Unit 4 shall be included in this permit with the next renewal.

2. B003 and B004 - Boilers No. 3 (Unit 3) and No. 4 (Unit 4), Natural Gas Fired

Unless otherwise specified the requirements apply to each boiler

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
Particulate Matter (PM)	2.1.	0.1 lbs/MMBtu		N/A	Fuel Restriction	Whenever Natural Gas is Used as Fuel
Particulate Matter (PM and PM ₁₀) - Emission Calculations	2.2.	N/A	N/A	<u>in lbs/MMscf</u> PM 1.9 PM ₁₀ 1.9	Recordkeeping and Calculation	Annually
SO ₂	2.3.	1.1 lbs/MMBtu, on a 3-Hour Rolling Average		N/A	Fuel Restriction	Whenever Natural Gas is Used as Fuel
SO ₂ – Unit 4 Only	2.4.	0.88 lbs/MMBtu, on a 30-Day Rolling Average Limitation Applies From November 1 – March 1		N/A	Continuous Emission Monitor	Continuously, 30-Day Rolling Average
NO _x	2.5.	Unit 3 - 0.60 lbs/MMBtu Unit 4 - 0.45 lbs/MMBtu All on a Rolling 30-Day Average		N/A	Continuous Emission Monitor	Continuously, 30-Day Rolling Average
Emission Calculations	2.6.	N/A	N/A	<u>in lbs/MMscf</u> SO ₂ CEM NO _x CEM CO 84 CO (Unit 4) 24 VOC 5.5	Recordkeeping and Calculation	Annually
Natural Gas Usage	2.7.	N/A	N/A	N/A	Recordkeeping	Annually
Continuous Emission Monitoring Requirements	2.8.	N/A	N/A	N/A	See Condition 2.8.	

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
Opacity	2.9.	Not to Exceed 20% Except as Provided for in 2.10 Below		N/A	Continuous Opacity Monitor	Continuously, Six-Minute Intervals
Opacity	2.10.	For Certain Operational Activities - Not to Exceed 30% for a Period or Periods Aggregating More than Six (6) Consecutive Minutes in Any 60 Consecutive Minutes		N/A	Continuous Opacity Monitor	Continuously, Six-Minute Intervals
Acid Rain Requirements	2.11.	See Section III of this Permit			Certification	Annually
Regional Haze Requirements – All Units	2.12	Shutdown Unit 3 by 12/31/2016 Switch Unit 4 to Natural Gas Only by 12/31/2017		N/A	See Condition 2.12.	
		Metro Units SO ₂ Emission Limitations: 1/1/2013 thru 12/31/2015: 4,200 tons/yr 1/1/2016 thru 12/31/2017: 3,450 tons/yr				
Regional Haze Requirements – Unit 4 Only	2.13	After Switching to Natural Gas Unit 4 is Subject to the Following Emission Limitations: PM – 0.03 lb/MMBtu SO ₂ – 7.81 tons/yr NO _x – 0.12 lb/MMBtu, on a 30-day rolling average		N/A	See Condition 2.13.	

- 2.1 Particulate Matter (PM) emissions, **from each unit**, shall not exceed the limitation stated above (Colorado Regulation No. 1, Section III.A.1.c and Colorado Construction Permit 86AD352-2 (Unit 4)). In the absence of credible evidence to the contrary, compliance with the particulate matter standard shall be presumed whenever natural gas is used as fuel for these boilers.
- 2.2 The emission factors listed above have been approved by the Division and shall be used to calculate emissions from the boiler (EPA's Compilation of Emission Factors (AP-42), dated March 1998, Section 1.4). Annual emissions, **from each unit**, of PM and PM₁₀ for the purposes of APEN reporting and payment of annual fees will be determined using the emission factors above and the annual natural gas usage, as required by Condition 2.7, in the following equation:

$$\text{Tons/yr} = \frac{[\text{EF (lbs/MMscf)} \times \text{annual natural gas usage (MMscf/yr)}]}{2000 \text{ lbs/ton}}$$

Note that if the baghouse has been operated and maintained in accordance with the requirements in Condition 9.1, then an efficiency of 99.9% can be applied to the above equation.

- 2.3 Sulfur Dioxide (SO₂) emissions, **from each unit**, shall not exceed 1.1 lbs/MMBtu on a 3 hour rolling average (Colorado Regulation No. 1, Section VII.A.1). In the absence of credible evidence to the contrary, compliance with the SO₂ emission limitations shall be presumed whenever natural gas is used as fuel for these boilers.
- 2.4 Sulfur Dioxide (SO₂) emissions **from Unit 4** shall not exceed 0.88 lbs/MMBtu, based on a 30-day rolling average. Such emission limit shall apply seasonally from November 1 through March 1 (Colorado Regulation No. 1, Section VII.A.1.c). In the absence of credible evidence to the contrary, compliance with the SO₂ emission limitations shall be presumed whenever natural gas is used as fuel for these boilers.
- 2.5 Nitrogen Oxide emissions shall not exceed 0.60 lbs/MMBtu **for Unit 3** and 0.45 lbs/MMBtu **for Unit 4**, both calculated as 30-day rolling averages (Colorado Regulation No. 1, Section VII.A.1).

Compliance with the NO_x limitations shall be monitored using the continuous emission monitors (CEMS) required by Condition 2.8.

- 2.6 The emission factors listed above have been approved by the Division and shall be used to calculate emissions from the boiler (EPA's Compilation of Emission Factors (AP-42), dated March 1998, Section 1.4). Annual emissions, **from each unit**, for the purposes of APEN reporting and payment of annual fees will be determined using the emission factors above and the annual natural gas usage, as required by Condition 2.7, in the following equation:

$$\text{Tons/yr} = \frac{[\text{EF (lbs/MMscf)} \times \text{annual natural gas usage (MMscf/yr)}]}{2000 \text{ lbs/ton}}$$

Annual emissions of SO₂ and NO_x shall be determined from the Continuous Emission Monitors (CEMs) required in Condition 2.8.

- 2.7 Natural Gas Usage, **for each unit**, shall be monitored annually and recorded and maintained to be made available to the Division upon request. Natural gas usage shall be determined using fuel meters and corporate records as necessary.
- 2.8 **For each unit**, the source shall install, certify and operate continuous emission monitoring (CEM) equipment for measuring opacity, SO₂, NO_x (including diluent gas either CO₂ or O₂), CO₂, and volumetric flow (40 CFR Part 75). The CEM systems shall meet the requirements in Condition 10. The continuous opacity monitoring systems **on Unit 4** shall be located such that any bypasses are monitored (Colorado Construction Permits 86AD352-2).
- 2.9 Compliance with this standard shall be demonstrated in accordance with the requirements in Condition 11.1.

- 2.10 Compliance with this standard shall be demonstrated in accordance with the requirements in Condition 11.2.
- 2.11 These units are subject to the Title IV Acid Rain Requirements. As specified in 40 CFR Part 72.72(b)(1)(viii), the acid rain permit requirements shall be a complete and segregable portion of the Operating Permit. As such the requirements are found in Section III of this permit.
- 2.12 These units are subject to the following Regional Haze Requirements:
- 2.12.1 The following units shall shutdown or switch to natural gas as follows (Colorado Regulation No. 3, Part F, Section VI.C.2):
- 2.12.1.1 Unit 3 shall shutdown no later than December 31, 2016.
- 2.12.1.2 Unit 4 shall switch to natural gas no later than December 31, 2017.
- 2.12.2 In addition to the above, the following SO₂ emission limitations apply (Colorado Regulation No. 3, Part G, Section IV.C.4):
- 2.12.2.1 Between January 1, 2013 and December 31, 2015, Cherokee Units 3 and 4 and Valmont Unit 5, as a whole, shall not emit in excess of 4,200 tons per year of SO₂ as determined on a calendar year annual basis.
- 2.12.2.2 Between January 1, 2016 and December 31, 2017, Cherokee Unit 4 and Valmont Unit 5, as a whole, shall not emit in excess of 3,450 tons per year of SO₂ as determined on a calendar year annual basis.
- Emissions from Units 3 and 4 shall be determined using the SO₂ continuous emissions monitoring systems required by Condition 2.8 of this permit. Emissions from Valmont Unit 5 shall be determined using the SO₂ continuous emissions monitoring systems required by Operating Permit 96OPBO131.
- 2.13 By December 31, 2017, **Unit 4** is subject to the following Regional Haze Requirements:
- 2.13.1 Emission Limitations (Colorado Regulation No. 3, Part F, Section VI.C.2)
- 2.13.1.1 PM emissions shall not exceed 0.03 lb/MMBtu.
- 2.13.1.2 SO₂ emissions shall not exceed 7.81 tons/yr.
- 2.13.1.3 NO_x emissions shall not exceed 0.12 lb/MMBtu on a 30-day rolling average.
- 2.13.2 Compliance Date
- By December 31, 2017 Unit 4 will be operated on natural gas only. (Colorado Regulation No. 3, Part F, Section VI.C.2) The permittee shall begin monitoring compliance with the emission limitations in Condition 2.13 on December 31, 2017.

2.13.3 PM Monitoring

Unless particulate compliance testing was completed within the previous 6 months, within 60 days of the compliance deadline specified in Condition 2.13.2 of this permit, the owner/operator shall conduct a stack test to measure particulate emissions in accordance with the requirements and procedures set forth in EPA Test Method 5 as set forth in 40 CFR Part 60, Appendix A. Stack testing for particulate matter shall be performed annually, except that: (1) if any test results indicate emissions are less than or equal to 50% of the emission limit, another test is required within five years; (2) if any test results indicate emissions are more than 50%, but less than or equal to 75% of the emission limit, another test is required within three years; and (3) if any test results indicate emissions are greater than 75% of the emission limit, an annual test is required until the provisions of (1) or (2) are met. A test run shall consist of three test runs, with each run at least 120 minutes in duration. Test results shall be converted to the applicable units and compliance will be based on the average of the three test runs. (Colorado Regulation No. 3, Part F, Section VII.C)

2.13.4 SO₂ Monitoring

2.13.4.1 At all times after the compliance deadline specified in Condition 2.13.2 of this permit, the owner/operator shall maintain, calibrate, and operate a CEMS, in full compliance with the requirements found at 40 CFR Part 75 as specified in Condition 10 of this permit to accurately measure from Unit 4 SO₂ and stack gas volumetric flow rate as such parameters are relevant to the applicable emission limit. The CEMS shall be used to determine compliance with the SO₂ Regional Haze emission limits for Unit 4. Such limits are expressed in units of pounds per million Btu. The owner/operator shall calculate emissions in the applicable units.

In determining compliance with the SO₂ Regional Haze limits, all periods of emissions shall be included, including startups, shutdowns, emergencies, and malfunction. In addition, any bias-adjusted or replaced data shall also be included.

For any hour in which fuel is combusted in Unit 4, the owner/operator shall calculate hourly mass emissions of SO₂ (in lbs/hr) in accordance with the requirements of 40 CFR Part 75 (including any replaced or bias-adjusted data, if applicable). The hourly SO₂ lb/hr value shall be multiplied by the unit operating time to get an SO₂ lbs value. Hourly SO₂ mass emissions (lbs) shall be summed and divided by 2000 lb/ton to determine monthly SO₂ emissions (in tons).

Monthly emissions (in tons) shall be summed together and used in a rolling twelve month total to monitor compliance with the annual limitation. Each month a new twelve month rolling total shall be calculated using the previous twelve months data.

- 2.13.4.2 In lieu of using the SO₂ continuous emissions monitoring system specified in Condition 2.13.4.1 to determine hourly mass emissions of SO₂ (in lbs/hr), the owner/operator may use the provisions in 40 CFR Part 75 Appendix D to determine hourly mass emissions of SO₂ (lb/hr) for every hour in which fuel is combusted in Unit 4 (including any replaced or bias-adjusted data, if applicable). The hourly lbs/hr values of SO₂ shall be converted to hourly and monthly mass emissions and twelve month rolling totals as specified in Condition 2.13.4.1.

2.13.5 NO_x Monitoring

- 2.13.5.1 The owner or operator of a boiler subject to this section shall comply with the Part 75 monitoring and recordkeeping requirements as specified in Condition 10 of this permit with the exception of the CEMS data substitution and bias adjustment requirements.

At all times after the compliance deadline specified in Condition 2.13.2 of this permit, the owner/operator of each BART, RP, or BART alternative program unit shall maintain, calibrate, and operate a CEMS, in full compliance with the requirements found at 40 CFR Part 75 not excluded above, to accurately measure from such unit SO₂, NO_x, diluent, and stack gas volumetric flow rate as such parameters are relevant to the applicable emission limit. The CEMS shall be used to determine compliance with the SO₂ and NO_x Regional Haze emission limits for each such unit. Such limits are expressed in units of pounds per million Btu. The owner/operator shall calculate emissions in the applicable units.

In determining compliance with the SO₂ and NO_x Regional Haze limits, all periods of emissions shall be included, including startups, shutdowns, emergencies, and malfunction.

(Colorado Regulation No. 3, Part F, Section VII.B.1.a)

- a. Lb/MMBtu Regional Haze Limits: For any hour in which fuel is combusted in the BART, RP, or BART alternative program unit, the owner/operator shall calculate hourly average SO₂ and NO_x concentrations in pounds per million Btu at the CEMS in accordance with the requirements of 40 CFR Part 75 except for Part 75 requirements excluded by Section VII.B.1.a. These hourly averages shall then be used to determine compliance in accordance with the particular limit's averaging period, as follows (Colorado Regulation No. 3, Part F, Section VII.B.1.a.(i)(1)):
- (i) Regional Haze limits with a 30-day averaging period: Before the end of each operating day, the owner/operator shall calculate and record the 30-day rolling average

emission rate in lb/MMBtu from all valid hourly emission values from the CEMS for the previous 30 operating days. (Colorado Regulation No. 3, Part F, Section VII.B.1.a.(i)(2))

- (ii) "Operating day" means any twenty-four-hour period between midnight and the following midnight during which any fuel is combusted at any time in a BART unit, BART alternative program unit, or Reasonable Progress unit. (Colorado Regulation No. 3, Part F, Section VII.A.4)

2.13.6 Recordkeeping and Reporting Requirements

2.13.6.1 The owner/operating shall maintain the following records for at least five years (Colorado Regulation No. 3, Part F, Section VII.D):

- a. All CEMS data as required in the applicable regulation, stack test data, and data collected pursuant to the CAM plan, including the date, place, and time of sampling, measurement, or testing; parameters sampled, measured, or tested and results; the company, entity, or person that performed the testing, if applicable; and any field data sheets from testing. (Colorado Regulation No. 3, Part F, Section VII.D.1)
- b. Records of quality assurance and quality control activities for emissions measuring systems including, but not limited to, any records required by 40 CFR Part 60, 63, or 75. (Colorado Regulation No. 3, Part F, Section VII.D.2)

2.13.6.2 The owner/operator of a BART, RP or BART alternative program unit shall submit semi-annual excess emissions reports no later than the 30th day following the end of each semi-annual period unless more frequent reporting is required. Excess emissions means emissions that exceed the Regional Haze emissions limits. Excess emission reports shall include the information specified in 40 CFR Part 60, Section 60.7(c). (Colorado Regulation No. 3, Part F, Section VII.E) Frequency of excess emission reports shall be quarterly as specified in Condition 8.4.

2.13.6.3 The owner/operator of a BART, RP or BART alternative program unit shall submit reports of any required performance stack tests for particulate matter, to the Division within 45 calendar days as required by Condition 7.2 of this permit.

3. B003 and B004 - Boilers No. 3 (Unit 3) and No. 4 (Unit 4), Combination Fired

- 3.1 Any combination of the fuels identified may be burned in the boiler provided the most stringent requirements and periodic monitoring shall be followed for the combination of fuels burned. The most stringent periodic monitoring requirements are for coal-firing of the units.

4. E001 & E002 - Emergency Generators

Parameter		Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
			Short Term	Long Term		Method	Interval
NO _x	E001	4.1.	N/A	8.3 tons/yr	3.20 lbs/MMBtu	Recordkeeping and Calculation	E001 - Monthly E002 - Annually
	E002			N/A			
CO	E001		N/A	2.2 tons/yr	0.85 lbs/MMBtu		
	E002			N/A			
No. 2 Diesel Fuel Consumption		4.2.					
E001			N/A	40,000 gal/yr	N/A	Fuel Meter	Monthly
E002			N/A	N/A			Annually
SO ₂	E001	4.3.	0.8 lbs/MMBtu		1.01S lbs/MMBtu	Fuel Restriction	Only No. 2 Diesel Fuel Used as Fuel
	E002		1.5 lbs/MMBtu				
Opacity		4.4.	Not to Exceed 20% except as Provided for Below		N/A	EPA Method 9	See Condition 4.4.
			Startup - Not to Exceed 30% for a Period or Periods Aggregating More than Six (6) Minutes in Any 60 Consecutive Minutes		N/A		

S = weight percent sulfur in fuel

4.1 Emissions of Nitrogen Oxides (NO_x) and Carbon Monoxide (CO) from the emergency generators are subject to the following requirements:

4.1.1 Emissions for Nitrogen Oxides (NO_x) and Carbon Monoxide (CO) from Unit E001 shall not exceed the above limitations (Colorado Construction Permit 98AD0119, as modified under the provisions of Section I, Condition 1.3). Monthly emissions shall be calculated by the end of the subsequent month using the above emission factors (EPA's Compilation of Emission Factors (AP-42), dated October 1996, Section 3.4) in the following equation:

$$\text{Tons/mo} = \frac{[\text{EF (lbs/MMBtu)} \times \text{heat content of the fuel (MMBtu/gal)} \times \text{fuel usage (gal/mo)}]}{2000 \text{ lbs/ton}}$$

Diesel fuel usage shall be determined in accordance with Condition 4.2 of this permit. A diesel fuel heat content of 135,490 Btu/gal shall be used in the above equation. Monthly emissions shall be used in a rolling twelve month total to monitor compliance with the annual limitations. Each month a new twelve month total shall be calculated using the previous twelve months data.

- 4.1.2 Annual emissions of Nitrogen Oxide (NO_x) and Carbon Monoxide (CO) emissions from Unit E002, for purposes of APEN reporting and payment of annual fees shall be determined using the above emission factors in the following equation:

$$\text{Tons/yr} = \frac{[\text{EF (lbs/MMBtu)} \times \text{heat content of the fuel (MMBtu/gal)} \times \text{fuel usage (gal/yr)}]}{2000 \text{ lbs/ton}}$$

Diesel fuel usage shall be determined in accordance with Condition 4.2 of this permit. A diesel fuel heat content of 135,490 Btu/gal shall be used in the above equation.

- 4.2 No. 2 Diesel Fuel Consumption for the emergency generators are subject to the following requirements:

4.2.1 No. 2 Diesel Fuel Consumption from Unit E001 shall not exceed the above limitations (Colorado Construction Permit 98AD0119, as modified under the provisions of Section I, Condition 1.3). Diesel fuel consumption shall be monitored and recorded monthly using the generator's fuel meter and any facility records as necessary. Monthly diesel fuel consumption shall be used in a twelve month rolling total to monitor compliance with the annual limits. Each month a new twelve month total shall be calculated using the previous twelve months data.

4.2.2 No. 2 Diesel Fuel Consumption from Unit E002 shall be monitored and recorded annually using the generator's fuel meter and any facility records as necessary.

- 4.3 Sulfur Dioxide (SO₂) emissions are subject to the following requirements:

4.3.1 For Unit E001, SO₂ emissions shall not exceed 0.8 lbs/MMBtu (Colorado Regulation No. 1, Section VI.B.4.b.(i)).

4.3.2 For Unit E002, SO₂ emissions shall not exceed 1.5 lbs/MMBtu (Colorado Regulation No. 1, Section IV.A.3.b.(i)).

In the absence of credible evidence to the contrary, compliance with the SO₂ emission limitation shall be presumed since only No. 2 Diesel Fuel is permitted to be used as fuel in these engines.

- 4.4 Opacity of emissions from **each** emergency generator shall not exceed the following:

4.4.1 Except as provided for in Condition 4.4.1 below, no owner or operator of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section II.A.1).

4.4.2 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from startup which is in excess of 30% opacity for a period or periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Regulation No. 1, Section II.A.4).

Compliance with these limitations shall be monitored by conducting visual emission observations in accordance with EPA Reference Method 9 as follows:

- 4.4.3 Engine startup shall not exceed 30 minutes. An engine startup period of less than 30 minutes shall not require an opacity observation to monitor compliance with the opacity limit in Condition 4.4.2. A record shall be kept of the date and time the engine started and when it was shutdown.
- 4.4.4 An opacity observation shall be conducted annually (calendar year period) to monitor compliance with the opacity limit in Condition 4.4.1. If the engine is operated more than 250 hours in any calendar year period, a second opacity observation shall be conducted. If two opacity readings are conducted in the annual (calendar year) period, such readings shall be conducted at least thirty days apart.
- 4.4.5 If the engine is not operated during the annual (calendar year) period, then no opacity observations are required.
- 4.4.6 Subject to the provisions of C.R.S. 25-7-123.1 and in the absence of credible evidence to the contrary, exceedance of the opacity limit shall be considered to exist from the time a Method 9 reading is taken that shows an exceedance of the opacity limit until a Method 9 reading is taken that shows the opacity is less than the opacity limit.
- 4.4.7 All Method 9 opacity observations shall be performed by an observer with current and valid Method 9 certification. Results of Method 9 readings and a copy of the certified Method 9 reader's certificate shall be kept on site and made available to the Division upon request.

5. Particulate Matter Emissions - Fugitive Sources

F001 - Coal Handling and Storage

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
PM and PM ₁₀	5.1.	N/A	N/A	N/A	Recordkeeping and Calculation	As Needed
Minimize Emissions - Fugitive Dust Control Plan	5.2, 5.3.	N/A	N/A	N/A	Certification	Semi-Annually

F002 - Ash Handling and Disposal

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
PM and PM ₁₀	5.1.	N/A	N/A	N/A	Recordkeeping and Calculation	As Needed
Minimize Emissions- Fugitive Dust Control Plan	5.2, 5.3.	N/A	N/A	N/A	Certification	Semi-Annually

F003 - Paved and Unpaved Roads

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
PM and PM ₁₀	5.1.	N/A	N/A	N/A	Recordkeeping and Calculation	As Needed
Minimize Emissions - Fugitive Dust Control Plan	5.2, 5.3.	N/A	N/A	N/A	Certification	Semi-Annually

- 5.1 Fugitive Particulate emissions are subject to the General Conditions in Section V of this Permit including Recordkeeping and Reporting requirements listed under Condition 22.
- 5.2 The source shall utilize the following control measures to minimize fugitive particulate emissions from this facility (per PSCo fugitive dust control plan, submitted November 1998 and revised March 29, 1999 and November 30, 2001):

- 5.2.1 All unpaved roads and other disturbed surface areas on site shall be watered daily to prevent off-property transport of visible fugitive particulate emissions. Daily watering will not be performed when no haul trucks are using the unpaved areas, following rain or snow events that provide sufficient moisture to control fugitive dust, and when the application of water creates a safety hazard due to below freezing temperatures.
- 5.2.2 Vehicle speed on all disturbed areas, paved and unpaved roads shall not exceed a maximum of 15 miles per hour. Speed limit signs shall be posted.
- 5.2.3 Mud and dirt carryout onto paved surfaces shall be minimized. Control measures shall include, but are not limited to, mechanical street sweeping, graveled entry ways onto paved roads, watering, and removal of materials from the exterior of vehicles prior to transport. Street sweeping to minimize mud and dirt carryout shall be performed twice per week. Street sweeping schedule may vary depending on the level of truck traffic on site and the duration and intensity of recent rain or snow events.
- 5.2.4 Ash unloaded into open trucks shall be mixed with water during the unloading process to control fugitive particulate emissions.
- 5.2.5 Open top ash trucks shall be covered prior to leaving the site to prevent spillage and fugitive emissions during transport of the ash for disposal.
- 5.2.6 Ash unloaded dry from the ash silos shall only be loaded into enclosed trucks.
- 5.2.7 The dust suppression system on the coal car unloader shall be maintained and operated as necessary to minimize fugitive emissions.
- 5.2.8 The coal unloading missile to the coal pile shall be operated and maintained to minimize fugitive emissions from this operation.
- 5.3 A fugitive dust control plan, or a modification to an existing plan, shall be required to be submitted if the Division determines that for this source or activity visible emissions are in excess of 20% opacity; or visible emissions are being transported off the property; or if this source or activity is operating with emissions that create a nuisance. The control plan shall be submitted to the Division within the time period specified by the Division (Colorado Regulation No. 1, Section III.D.1.c). The 20% opacity, no off-property transport, and nuisance emission limitations are guidelines and not enforceable standards and no person shall be cited for violation thereof pursuant to C.R.S. 25-7-115 (Colorado Regulation No. 1, Section III.D.1.e.(iii)).

6. Particulate Matter Emissions - Point Sources

P001 thru P003- Three (3) Grandfathered Ash Silos

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor (lbs/ton)	Monitoring	
		Short Term	Long Term		Method	Interval
Particulate Matter (PM and PM ₁₀) - Emission Calculations	6.1.	N/A	N/A	<u>Loading:</u> PM 0.61 PM ₁₀ 0.61 <u>Unloading:</u> PM 1.5 PM ₁₀ 1.5	Recordkeeping and Calculation	Annually
Ash/Spent Sorbent Processed	6.3.	N/A	N/A	N/A	Recordkeeping	Annually
Opacity	6.6.	Less Than or Equal to 20%		N/A	See Condition 6.6.	

P006 & P007 - Two (2) Permitted Ash Silos

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor (lbs/ton)	Monitoring	
		Short Term	Long Term		Method	Interval
Particulate Matter (PM and PM ₁₀) - Emission Calculations	6.2.	Unit 4 Ash Silo		<u>Loading:</u> PM 0.61 PM ₁₀ 0.61 <u>Unloading:</u> PM 1.5 PM ₁₀ 1.5	Recordkeeping and Calculation	Monthly
		N/A	PM: 15.5 tons/yr PM ₁₀ : 15.5 tons/yr			
		Unit 2 Ash Silo				
		N/A	PM = 3.7 tons/yr PM ₁₀ = 3.7 tons/yr			
Ash/Spent Sorbent Processed	6.4.	Unit 4 Ash Silo		N/A	Recordkeeping	Monthly
		N/A	205,378 tons/yr			
		Unit 2 Ash Silo				
		N/A	49,557 tons/yr			
Opacity	6.6.	Less Than or Equal to 20%		N/A	See Condition 6.6.	

P008 – Unit 3 Ash Blower System

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
Particulate Matter (PM and PM ₁₀) - Emission Calculations	6.2.	N/A	PM: 1.13 tons/yr PM ₁₀ : 1.13 tons/yr	0.26 lbs/hr	Recordkeeping and Calculation	Monthly
Hours of Operation	6.5.	N/A	N/A	N/A	Recordkeeping	Monthly
Opacity	6.6.	Less Than or Equal to 20%		N/A	See Condition 6.6.	

P004 - Coal Handling System (Conveyors and Two (2) Crushers)

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
Particulate Matter (PM and PM ₁₀) - Emission Calculations	6.1.	N/A	N/A	See Condition 6.1.	Recordkeeping and Calculation	Annally
Coal Handling	6.3.	N/A	N/A	N/A	Recordkeeping	Annually
Opacity	6.6.	Less Than or Equal to 20%		N/A	See Condition 6.6.	

P005 - Three (3) Dry Sodium Reagent Silos

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
PM	6.2.	N/A	0.03 tons/yr	1.7 lbs/ton	Recordkeeping and Calculation	Monthly
PM ₁₀		N/A	0.03 tons/yr	1.7 lbs/ton		
Sodium Reagent Processed	6.4.	N/A	35,050 tons/yr	N/A	Recordkeeping	Monthly
Opacity	6.6.	Less Than or Equal to 20%		N/A	See Condition 6.6.	

6.1 Annual emissions of Particulate Matter (PM and PM₁₀) for the purposes of APEN reporting and payment of annual fees will be determined as follows:

6.1.1 The emission factors listed above have been approved by the Division and shall be used to calculate emissions **from the ash silos** (EPA's Compilation of Emission

Factors (AP-42), dated January 1995, Section 11.17) using the annual quantity of ash processed, as determined by Condition 6.3.1, in the following equations:

Ash Silo Emissions = Silo Loading + Silo Unloading
Where:

$$\text{Silo Loading} = \frac{[\text{EF (lbs/ton)} \times \text{annual ash loaded (tons/yr)}]}{2000 \text{ lbs/ton}} \quad \text{Control Efficiency} = 99.9\%$$

$$\text{Silo Unloading} = \frac{[\text{EF (lbs/ton)} \times \text{annual ash unloaded (tons/yr)}]}{2000 \text{ lbs/ton}} \quad \text{Control Efficiency} = 90\%$$

Note that in order to use the control efficiencies identified the following conditions shall be met:

- 6.1.1.1 Maintaining and Operating the baghouses in accordance with Condition 9.2.
- 6.1.1.2 The water spray system shall be operated and maintained in accordance with the good engineering practices.
- 6.1.2 Annual emissions of PM and PM₁₀ **from the coal handling system** will be determined using the emission factors below, the annual quantity of coal handled, as determined by Condition 6.3.2, and the average moisture content, as determined by the coal sampling required in Condition 1.9, in the following equations:

Emissions from coal handling = emissions from coal conveying + emissions from coal crushing

Where:

Coal conveying emissions (from AP-42, Section 13.2.4, dated January 1995):

$$\text{PM} = \text{PM}_{10} = \frac{k \times 0.0032 \times (U/5)^{1.3} \times D \times \text{tons of coal transferred per year}}{(M/2)^{1.4} \times (2000 \text{ lbs/1 ton})}$$

Where: k = particle size multiplier, dimensionless (for PM 0.74, for PM₁₀ 0.35)
U = mean wind speed, mph (from T5 application, 8.6 mph)
M = moisture content of coal, in percent (from T5 application, 4.5%)
D = number of transfer points, dimensionless

Coal crushing emissions (from EPA's FIRE Version 5.0, dated August 1995, SCC 3-05-010-10):

$$\text{PM} = \frac{(0.02 \text{ lbs/ton coal}) \times (\text{tons of coal crushed per year})}{2000 \text{ lbs/ton}}$$

$$\text{PM}_{10} = \frac{(0.006 \text{ lbs/ton coal}) \times (\text{tons of coal crushed per year})}{2000 \text{ lbs/ton}}$$

- 6.2 Particulate Matter (PM and PM₁₀) emissions **from the permitted ash storage silos, Unit 3 ash blower system and the dry sodium reagent silos** are subject to the following requirements:

- 6.2.1 Emissions of Particulate Matter (PM and PM₁₀) **from the permitted ash storage silos** shall not exceed the above limitations (Colorado Construction Permit 00AD0570 (Unit 4 silo) and 00AD0833 (Unit 2 silo), as modified under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3, Part B, Section II.A.6 and Part C, Section X, based on requested emissions for the Unit 4 ash silo as indicated on the APEN submitted March 26, 2007). Monthly emissions shall be calculated by the end of the subsequent month using the above emission factors (EPA's Compilation of Emission Factors (AP-42), dated January 1995, Section 11.17) and the monthly quantity of ash processed, as determined by Condition 6.4.1, in the equations identified in Condition 6.1.1.

Note that in order to use the control efficiencies identified for the equations in Condition 6.1.1, the requirements in Conditions 6.1.1.1 and 6.1.12 must be met.

- 6.2.2 Emissions of Particulate Matter (PM and PM₁₀) **from the Unit 3 ash blower system** shall not exceed the above limitations (Colorado Construction Permit 00AD0813). Monthly emissions shall be calculated by the end of the subsequent month using the above emission factor (manufacturer's guarantee) and the hours of operation for the month, as determined by Condition 6.5, in the following equation:

$$\text{Tons/mo} = \frac{\text{EF (lbs/hr)} \times \text{hours of operation}}{2000 \text{ lbs/ton}}$$

- 6.2.3 Emissions of Particulate Matter (PM and PM₁₀) **from the dry sodium reagent silos** shall not exceed the above limitations (Colorado Construction Permit 97AD0455, as modified under the provisions of Section I, Condition 1.3). Monthly emissions shall be calculated by the end of the subsequent month using the above emission factors (Background Document for AP-42, Sodium Carbonate Production (formerly Section 5.16, now Section 8.12), dated January 1996, average stack test results for test 23b) and the quantity of dry sodium reagent loaded into the silos, as determined by Condition 6.4.3, in the following equation:

$$\text{tons/month} = \frac{\text{EF (lbs/ton)} \times \text{dry sodium reagent loaded in/out of silos (tons/mo)}}{2000 \text{ lbs/ton}}$$

A control efficiency of 99.9% can be applied to these calculations provided the bin vent filters on the silos are operated and maintained in accordance with Condition 9.2.

Monthly emissions **from each permitted ash storage silo, the Unit 3 ash blower system and the dry sodium reagent silos** shall be used in a rolling twelve month total to monitor compliance with the annual limitations. Each month a new twelve month total shall be calculated using the previous twelve months data.

- 6.3 The quantity of materials processed through the grandfathered ash silos and the coal handling system shall be monitored as follows:

- 6.3.1 The quantity of **ash and spent sorbent** loaded into and out of the **grandfathered ash silos** shall be monitored and recorded annually. The quantity of ash handled shall be determined using the average ash content of the coal, as determined through coal sampling required in Condition 1.9 and coal consumption records (Condition 1.8). An 80% fly ash factor shall be assumed. The quantity of fly ash shall be increased by 15% to account for the additional sodium and absorbed SO₂ (the spent sorbent) for ash originating from units equipped with dry sodium injection systems. The quantity of fly ash shall be increased by 25% to account for the additional lime and absorbed SO₂ (the spent sorbent) for ash originating from units equipped with lime spray dryer systems.
- 6.3.2 The quantity of **Coal Handled** through the **coal handling system** shall be monitored and recorded annually. The quantity of coal handled shall be determined using belt scales and corporate records as necessary.
- 6.4 The quantity of materials processed through the permitted ash silos and the dry sodium reagent silos are subject to the following limitations:
- 6.4.1 The quantity of **dry sodium reagent** loaded into the **dry sodium reagent silos** shall not exceed the above limitations (Colorado Construction Permit 97AD0455, as modified under the provisions of Section I, Condition 1.3). The quantity of dry sodium reagent loaded into the silos shall be monitored and recorded monthly.
- 6.4.2 The quantity of **ash and spent sorbent** loaded into and out of the **permitted ash silos** shall not exceed the above limitations (Colorado Construction Permit 00AD0570 (Unit 4 silo) and 00AD0833 (Unit 2 silo), as modified under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3, Part B, Section II.A.6 and Part C, Section X, based on requested throughput for the Unit 4 ash silo as indicated on the APEN submitted January 22, 2007 and information in a June 3, 2009 submittal for the Unit 2 ash silo). The quantity of ash loaded into and out of each ash silo shall be monitored and recorded monthly. The quantity of ash handled through each silo shall be determined using the average ash content of the coal, as determined through coal sampling required in Condition 1.9 and coal consumption records (Condition 1.8). An 80% fly ash factor shall be assumed. The quantity of fly ash shall be increased by 15% to account for the additional sodium and absorbed SO₂ (the spent sorbent) for ash originating from units equipped with dry sodium injection systems. The quantity of fly ash shall be increased by 25% to account for the additional lime and absorbed SO₂ (the spent sorbent) for ash originating from units equipped with lime spray dryer systems.

Monthly quantities of material processed **through each permitted ash silo and the dry sodium reagent silos** shall be used in a twelve month rolling total to monitor compliance with the annual limitation. Each month, a new twelve month total shall be calculated using the previous twelve months data.

- 6.5 Hours of operation **of the Unit 3 ash blower system** will be monitored and recorded monthly. Hours of operation shall be used to calculate emissions as required by Condition 6.2.2.
- 6.6 Opacity of emissions **from each ash silo, the Unit 3 ash blower system, the coal handling system and each dry sodium reagent silo** shall not exceed 20% (Colorado Regulation No. 1, Section II.A.1 and Colorado Construction Permits 00AD0570 (Unit 4 ash silo), 00AD0833 (Unit 2 ash silo), 00AD0813 (Unit 3 ash blower system) and 97AD0455 (dry sodium reagent silos)). Compliance with the opacity limitation shall be monitored as follows:
- 6.6.1 In the absence of credible evidence to the contrary, the **ash silos** shall be presumed to be in compliance with the 20% opacity requirement provided the requirements in Conditions 6.1.1.1 and 6.1.1.2 are met.
- 6.6.2 In the absence of credible evidence to the contrary, the **coal handling system** shall be presumed to be in compliance with the 20% opacity requirement provided:
- 6.6.2.1 The crushers are located in buildings and the integrity of the crusher buildings are maintained.
- 6.6.2.2 The integrity of the aboveground conveyor covers, with the exception of belts 5A and 5B on the Units 1, 2 and 3 tripper deck, and all transfer point enclosures is maintained.
- 6.6.3 In the absence of credible evidence to the contrary, **the Unit 3 ash blower system** is presumed to be in compliance with the 20% opacity requirement provided the unit is operated in accordance with manufacturer's recommendations and good engineering practices.
- 6.6.4 In the absence of credible evidence to the contrary, the **dry sodium reagent silos** are presumed to be in compliance with the 20% opacity requirement provided the bin vent filters on the silos are operated and maintained in accordance with the requirements in Condition 9.2.

7. M001 - Four (4) Cooling Towers and Two (2) Service Water Towers

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
PM	7.1.	N/A	N/A	See Condition 7.1.	Recordkeeping and Calculation	Annually
PM ₁₀				0.0527 lbs/mmgal (as CHCl ₃)		
VOC						
Water Circulated	7.2.	N/A	N/A	N/A	Recordkeeping	Annually
Total Solids Concentration	7.3.	N/A	N/A	N/A	Laboratory Analysis	Annually
Opacity	7.4.	Not to Exceed 20%		N/A	See Condition 7.4.	

- 7.1 Annual emissions of Particulate Matter (PM and PM₁₀) and Volatile Organic Compound (VOC) **from each cooling and service water tower**, for the purposes of APEN reporting and payment of annual fees will be determined using the following equations:

$$PM = PM_{10} \text{ (Tons/yr)} = \frac{Q \times d \times \% \text{ drift} \times 31.3\% \text{ drift dispersed} \times \text{Total Solids Concentration}}{2000 \text{ lbs/ton}}$$

Where:

- Q = water circulated, gal/yr - to be determined by Condition 7.2
- d = density of water, lbs/gal (from T5 application d = 8.34 lbs/gal)
- % drift = 0.001% (from T5 application)
- 31.3% drift dispersed (from EPA-600/7-79-251a, November 1979, AEffects of Pathogenic and Toxic Materials Transported Via Cooling Device Drift - Volume1 - Technical Report@, Page 63)
- Total Solids Concentration = total solids concentration, in ppm (lbs solids/10⁶ lbs water) - to be determined by Condition 7.3.

$$VOC = CHCl_3 \text{ (tons/yr)} = \frac{Q \times EF \times (1 \text{ mmgal}/10^6 \text{ gal})}{2000 \text{ lbs/ton}}$$

Where:

- Q = water circulated, gal/yr
- EF = 0.0527 lbs/mmgal (from letter from Wayne C. Micheletti to Ed Lasnic, dated November 11, 1992)

- 7.2 The total quantity of water circulated **from each cooling and service water tower** shall be monitored and recorded annually. The annual quantity of water circulated shall be used to calculate emissions in accordance with the requirements in Condition 7.1.
- 7.3 Samples of circulating water **from each cooling and service water tower** shall be taken and analyzed annually to determine the Total Solids Concentration. The total solids concentration shall be used to calculate PM and PM₁₀ emissions as required by Condition 7.1.
- 7.4 Opacity of emissions **from each cooling and service water tower** shall not exceed 20% (Colorado Regulation No. 1, Section II.A.1). In the absence of credible evidence to the contrary,

compliance with the opacity standard shall be presumed, provided the drift eliminators on the towers are maintained and operated in accordance with manufacturers' requirements and good engineering practices.

8. T001 - Gasoline Aboveground Storage Tank (1,000 gal)

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
Transfer of Gasoline	8.1.	N/A	N/A	N/A	See Condition 8.1.	
Equipment Requirements	8.2.	N/A	N/A	N/A	Certification	Annually
Vapor Control System	8.3.	N/A	N/A	N/A	Certification	Annually
Disposal of Gasoline	8.4.	N/A	N/A	N/A	Certification	Annually

Note that this emission unit is exempt from the APEN reporting requirements in Regulation No.3, Part A and the construction permit requirements in Regulation No. 3, Part B provided actual, uncontrolled emissions are less than the APEN de minimis level.

- 8.1 The owner or operator of storage tanks at a gasoline dispensing facility, which receives and stores gasoline, shall not allow the transfer of petroleum liquid from any delivery vessel into any tank unless the tank is equipped with a submerged fill pipe and the vapors displaced from the storage tank during filling are processed by a vapor control system (Colorado Regulation No. 7, Section VI.B.3). Compliance with this requirement shall be monitored by meeting the requirements in Conditions 8.2 and 8.3.
- 8.2 Tanks equipped with a submerged fill pipe shall meet the specifications of Regulation No. 7, Appendix A (Colorado Regulation No. 7, Section VI.B.3.c).
- 8.3 The vapor control system identified in Condition 8.3 of this permit is subject to the following requirements:
 - 8.3.1 Vapor control system shall include a vapor-tight line from the storage tank to delivery vessel (Colorado Regulation No. 7, Section VI.B.3.d.(i)).
 - 8.3.2 The owner or operator shall ensure that operating procedures are used so that gasoline cannot be transferred into the tank unless the vapor control system is in use (Colorado Regulation No. 7, Section VI.B.3.e).
 - 8.3.3 This tank shall only be filled with gasoline from a certified (in accordance with Colorado Regulation No. 7, Section VI.D) delivery truck equipped with an approved gasoline vapor collection system. The permittee's operating procedures shall include this requirement.

- 8.4 No owner or operator of a gasoline dispensing facility shall permit gasoline to be intentionally spilled, discarded in sewers, stored in open containers, or disposed of in any manner that would result in evaporation (Colorado Regulation No. 7, Section V.B). The permittee's operating procedures for gasoline dispensing shall include these requirements.

9. Particulate Matter Emission Periodic Monitoring Requirements

9.1 Operation and Maintenance Requirements for Boiler Baghouses

The baghouse shall be maintained and operated in accordance with good engineering practices. Any maintenance performed on the baghouse shall be documented and made available to the Division upon request.

9.2 Operation and Maintenance Requirements for Other Baghouses

Baghouses, other than those on the boilers, shall be operated and maintained in accordance with manufacturers' recommendations and good engineering practices.

9.3 Stack Testing

Stack testing for particulate matter emissions shall be performed on the main boiler within 180 days of renewal permit issuance [April 1, 2010] in accordance with the requirements and procedures set forth in EPA Test Method 5 as set forth in 40 CFR Part 60, Appendix A. Frequency of testing, thereafter shall be annual except that: (1) if the first test required by this renewal permit or any subsequent test results indicate emissions are less than or equal to 50% of the emission limit, another test is required within five years; (2) if the first test required by this renewal permit or any subsequent test results indicate emissions are more than 50%, but less than or equal to 75% of the emission limit, another test is required within three years; (3) if the first test required by this renewal permit or any subsequent test results indicate emissions are greater than 75% of the emission limit, an annual test is required until the provisions of (1) or (2) are met.

A stack testing protocol shall be submitted for Division approval at least thirty (30) calendar days prior to any performance of the test required under this condition. No stack test required herein shall be performed without prior written approval of the protocol by the Division. The Division reserves the right to witness the test. In order to facilitate the Division's ability to make plans to witness the test, notice of the date (s) for the stack test shall be submitted to the Division at least thirty (30) calendar days prior to the test. The Division may for good cause shown, waive this thirty (30) day notice requirement. In instances when a scheduling conflict is presented, the Division shall immediately contact the permittee in order to explore the possibility of making modifications to the stack test schedule. The required number of copies of the compliance test results shall be submitted to the Division within forty-five (45) calendar days of the completion of the test unless a longer period is approved by the Division.

10. Continuous Emission Monitoring and Continuous Opacity Monitoring Systems

10.1 CEM and COM Monitoring Systems QA/QC Plan

Continuous Emission Monitoring (CEM) and Continuous Opacity Monitoring (COM) systems are required for measurement of the stack SO₂, CO₂, NO_x (and diluent monitor for either CO₂ or O₂), gas flow rate and opacity emissions. The quality assurance/quality control plan required by 40 CFR Part 75, Appendix B shall be made available to the Division upon request. Revisions shall be made to the plan at the request of the Division.

10.2 General Provisions

- 10.2.1 The permittee shall ensure that all continuous emission and opacity monitoring systems required are in operation and monitoring unit emissions or opacity at all times that the boiler combusts any fuel except as provided in 40 CFR § 75.11(e) and during periods of calibration, quality assurance, or preventative maintenance performed pursuant to 40 CFR Part 75 § 75.21 and Appendix B, periods of repair, periods of backups of data from a data acquisition and handling system or recertification performed pursuant to 40 CFR § 75.20. The permittee shall also ensure, subject to the exceptions just noted, that the continuous opacity monitoring systems required are in operation and monitoring opacity during the time following combustion when fans are still operating unless fan operation is not required to be included under any other applicable requirement (40 CFR Part 75 § 75.10(d)).
- 10.2.2 Alternative monitoring systems, alternative reference method, or any other alternative for the required continuous emission monitoring systems shall not be used without having obtained prior written approval from the appropriate agency, either the Division or the U.S. EPA, depending on which agency is authorized to approve such alternative under applicable law. Any alternative continuous emission monitoring systems or continuous opacity monitoring systems must be certified in accordance with the requirements of 40 CFR Part 75 prior to use.
- 10.2.3 All test and monitoring equipment, methods, procedures and reporting shall be subject to the review and approval by the appropriate agency, either the Division or the U.S. EPA, depending on which agency is authorized to approve such items under applicable law, prior to any official use. The Division shall have the right to inspect such equipment, methods and procedures and data obtained at any time. The Division shall provide a witness(s) for any and all tests as Division resources permit.
- 10.2.4 A file shall be maintained of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on

these systems or devices; and all other information required by applicable portions of 40 CFR Part 75 recorded in a permanent form suitable for inspection.

- 10.2.5 Records shall be maintained of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the source; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

10.3 Continuous Emission Monitoring (CEM) Systems

- 10.3.1 The Continuous Emission Monitoring (CEM) Systems are subject to the requirements of 40 CFR Part 75. Each monitoring system shall meet the equipment, installation and performance specifications of 40 CFR Part 75, Appendix A.
- 10.3.2 The permittee shall follow the 40 CFR Part 75 quality assurance and quality control procedures of Appendix B and the conversion procedures of Appendix F. For purposes of monitoring compliance with the SO₂ emission limitations in Conditions 1.3 and 1.4, hourly SO₂ data shall be converted to lbs/MMBtu in accordance with the procedures in 40 CFR Part 60, Appendix A, Method 19.
- 10.3.3 When the continuous emission monitoring system is unable to provide quality assured data, the permittee may use either of the following monitoring methods:
- 10.3.3.1 A certified backup monitor may be used to monitor compliance with the NO_x and SO₂ emission limitations. If backup monitors are used as described in 40 CFR Part 75, Subpart C, the next quarterly report shall identify the dates and times the backup monitors were in use.

10.4 Continuous Opacity Monitoring (COM) Systems

- 10.4.1 The Continuous Opacity Monitoring (COM) Systems are subject to the requirements of 40 CFR Part 75. Each continuous opacity monitoring system shall meet the design, installation, equipment and performance specifications in 40 CFR Part 60, Appendix B, Performance Specification 1.
- 10.4.2 The permittee shall follow the calibration requirements in 40 CFR Part 60 Subpart A § 60.13(d) (Colorado Regulation No. 1, Section VII.A.1.a).
- 10.4.3 When the opacity monitoring system is unable to provide quality assured data in accordance with 40 CFR Part 75 for more than eight (8) consecutive hours, the source shall utilize either a backup opacity monitor or EPA Reference Method 9, or an "Operating Report During Monitor Unavailability" to satisfy the requirements for periodic monitoring under 40 CFR 70 and Colorado Regulation No. 3.

If backup monitors are used, the next quarterly report submitted by the source shall identify the dates and times the backup monitors were in use.

If EPA Reference Method 9 observations are used, visual observations in accordance with the reference method shall be taken and recorded by the source whenever the source is in operation and while fuel is present in the boiler.

When such circumstances exist, the visual observations shall be performed by a certified opacity observer each 24 hour period thereafter over a thirty minute period until the opacity monitoring system is again able to provide quality assured data. If a visual emissions observation cannot be performed in accordance with EPA Reference Method 9, the source shall record the reasons why that is the case. Subject to the provisions of C.R.S. § 25-7-123.1 and in the absence of credible evidence to the contrary, exceedance of the limit shall be considered to exist from the time a Method 9 reading is taken that shows an exceedance of the opacity limit until a Method 9 reading is taken that shows the opacity is less than the opacity limit.

If an "Operating Report During Monitor Unavailability" is used, the source shall record the opacity monitor registered reading prior to the monitor unavailability period and that immediately following such periods. A source must also record and maintain a description of unit operating characteristics that demonstrate the likelihood of compliance with the applicable opacity limitation. Such operating circumstances shall be identified on a unit specific basis and provided to the Division and shall include information related to the operation of the control equipment and any other operational parameters that may affect opacity.

- 10.4.4 **For Unit 4 only**, all monitored data from the continuous opacity monitors shall be kept on site for two (2) years (Colorado Construction Permits 86AD352-2). Note that the requirement to retain COM data for five years, as required by Section V, Condition 22.a of this permit still applies, however, the requirement to retain COM monitoring data on site for one year as required by Section V, Condition 22.b of this permit is superceded.

10.5 Notification and Recordkeeping

The owner or operator of a facility required to install, maintain, and calibrate continuous monitoring equipment shall submit to the Division, by the end of the calendar month following the end of each calendar quarter, a report of excess emissions for all pollutants monitored for that quarter. This report shall consist of the following information and/or reporting requirements as specified by the Division.

- 10.5.1 The magnitude of excess emissions computed in accordance with Division guidelines, any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions (Colorado Regulation No. 1, Section IV.G.1).
- 10.5.2 The nature and cause of the excess emissions, if known (Colorado Regulation No. 1, Section IV.G.2).

- 10.5.3 The date and time identifying each period of equipment malfunction and the nature of the system repairs or adjustments, if any, made to correct the malfunction (Colorado Regulation No. 1, Section IV.G.3).
- 10.5.4 A schedule of the calibration and maintenance of the continuous monitoring system (Colorado Regulation No. 1, Section IV.G.4).
- Note that submittal of a schedule of calibration and maintenance is not necessary, provided the QA/QC plan identified in Condition 10.1 is made available to the Division upon request.
- 10.5.5 Compliance with the reporting requirements of this section shall not relieve the owner or operator of the reporting requirements of Section II.E of the Common Provisions Regulation concerning affirmative defense for excess emissions during malfunctions (Colorado Regulation No. 1, Section IV.G.5).

11. Opacity Requirements and Periodic Monitoring

11.1 Opacity – Colorado Regulation No. 1, Section II.A.1

Except as provided for in Condition 11.2, below, no owner or operators of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section II.A.1).

The permittee shall operate, calibrate and maintain a continuous in-stack monitoring device for the measurement of opacity. Unless otherwise specified in this permit, the continuous opacity monitor (COM) shall be used to monitor compliance with the 20% opacity limit set forth above. The requirements for the opacity monitoring system are defined in Condition 10 of this permit.

11.2 Opacity - Colorado Regulation No. 1, Section II.A.4

No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from the building of a new fire, cleaning of fire boxes, soot blowing, start-up, process modifications or adjustment or occasional cleaning of control equipment which is in excess of 30% opacity for a period or periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Regulation No. 1, Section II.A.4). Compliance with this standard shall be monitored, during the aforementioned events, using the continuous opacity monitor (COM) as required by this permit.

The permittee shall operate, calibrate and maintain a continuous in-stack monitoring device for the measurement of opacity. Unless otherwise specified in this permit, the continuous opacity monitor (COM) shall be used to monitor compliance with the 30% opacity limit set forth above. The requirements for the opacity monitoring system are defined in Condition 10 of this permit.

A record shall be kept of the type, date and time of the commencement and completion of each and every condition subject to Colorado Regulation No. 1, Section II.A.4 that results in an exceedance. The records shall be made available for review upon request by the Division.

12. Lead Periodic Monitoring

Lead emissions from the facility are subject to the General Conditions in Section V of this Permit including Recordkeeping and Reporting requirements and Fee Payment listed under Conditions 22 and 8. Annual emissions for the purposes of APEN reporting and payment of annual fees shall be based on the information submitted in the annual Toxic Release Inventory (TRI) report. The TRI report and calculation methodology shall be made available to the Division upon request.

13. Coal Sampling Requirements

Coal shall be sampled to determine the heat content, weight percent sulfur, weight percent ash and moisture content of the coal. Vendor receipts used for contractual purposes to insure fuel is delivered within specifications shall be adequate to provide the necessary data for the purposes of emission calculations and monitoring compliance with permit conditions. The permittee shall use vendor sample results from all shipments of coal received.

14. Emission Factors

The permittee shall comply with the provisions of Regulation No. 3 concerning APEN reporting. Emission factors that are approved compliance factors specified within this permit can not be adjusted without requiring a permit modification. Emission factors and/or other emission estimating methods used only to comply with the reporting requirements of this regulation can be updated and modified as specified. These changes by themselves, do not require any permitting activities though the resulting emission estimate may trigger permitting activities.”

15. Voluntary Emissions Reduction Agreement – State-Only Requirements

15.1 Definitions

- 15.1.1 “Metro Units” means coal-fired electric generating units located at electrical generating stations in the Denver Metropolitan Area owned by Public Service Company of Colorado (PSCo) and specifically consisting of all of the following:
 - 15.1.1.1 Cherokee Electric Generating Station, 6198 North Franklin St., Denver, Colorado, Units 3 and 4.
 - 15.1.1.2 Arapahoe Electric Generating Station, 2601 South Platte River Drive, Denver, Colorado, Units, 1, 2, 3 and 4.
 - 15.1.1.3 Valmont Electric Generation Station, 1800 North 63rd Street, Boulder, Colorado, Unit 5 (Boiler No. 1)
- 15.1.2 “Malfunction” is defined in the Common Provisions Regulation, Section I.G.

- 15.1.3 “Significant Control Equipment Failure” means a substantial failure of control equipment that is caused by a force that PSCo could not have reasonably controlled and that prevents PSCo from complying with the SO₂ emission limitation contained in Condition 15.2.1. Significant Control Equipment Failures include, but are not limited to, acts of God, acts of war or terrorism, acts of the public enemy and structural or operational failure of the control equipment not caused by poor or improper maintenance by PSCo.
- 15.1.4 “Emission Credits” Means the difference in tons of SO₂ between the SO₂ emission limitation imposed on the Metro Units under Condition 15.2.1 and the Metro Units’ actual emissions of SO₂ during any calendar year. One Emission Credit represents the right to emit one ton of SO₂ in any one calendar year.
- 15.1.5 “Banked Emission Credits” means Emission Credits that PSCo may use to comply with the SO₂ emission limitation in Condition 15.2.1. Banked Emission Credits are accumulated only in years in which the Metro Units’ SO₂ emissions are less than the 10,500 tons per year SO₂ emission limitation contained in Condition 15.2.1.1. Banked Emission Credits may be used in any year after the year in which they are banked. Any Banked Emission Credits used by PSCo to meet the SO₂ emission limitations in one year shall be deducted from the Banked Emission Credits available for use in future years. To the extent they are available, PSCo shall use Banked Emission Credits to offset any SO₂ emission in excess of the limitations contained in Condition 15.2.1 that are attributable to Malfunction or Significant Control Equipment Failures. The Emissions Credits available for use by PSCo as Banked Emissions Credits may, at any time, include up to 2,000 Emission Credits.

15.2 Sulfur Dioxide Emission Limitations

- 15.2.1 Limitation: Beginning with the calendar year that begins on the Compliance Date (January 1, 2003), the Metro Units shall be required to meet either of the following SO₂ emission limitations (Voluntary Emissions Reduction Agreement, paragraph 2.a):
- 15.2.1.1 The Metro Units, considered as a whole shall not emit in excess of 10,500 tons of SO₂ per year as determined on a calendar year annual basis. Emissions from the Metro Units shall be determined from data generated by the continuous emission monitors installed on each unit pursuant to Regulation No. 1, Paragraph VII.A. If, in any year, the Metro Units emit more than 10,500 tons of SO₂, the division shall, at PSCo’s direction, deduct some or all of PSCo’s Banked Emission Credits from the Metro Units’ reported SO₂ emissions prior to determining whether the Metro Units have complied with the SO₂ emission limitation. In no event shall PSCo be allowed to bank Emission Credits in any year in which the emissions limitations have been exceeded due to Malfunction or

Significant Control Equipment Failures, and PSCo shall be required to deduct Banked Emission Credits to the extent they are available to offset any excess emissions attributable to these defined events. Except to the extent necessary to offset excess emissions attributable to Malfunction or Significant Control Equipment Failures, PSCo may not deduct more than 1,000 Banked Emission Credits from the Metro Units' reported SO₂ emissions in any calendar year.

- 15.2.1.2 In the alternative, instead of meeting the 10,500 ton per year limitation set forth in Condition 15.2.1.1, the Metro Units considered as a whole may comply with the SO₂ emission limitations contained in the Voluntary Emissions Reduction Agreement by reducing uncontrolled SO₂ emissions by 70 percent as determined using the methods set forth in Exhibit A of the Voluntary Emissions Reduction Agreement, which has been included in Appendix G of this permit. The Metro Units' compliance with this alternative emissions limit shall be determined on a calendar year annual basis.
- 15.2.2 Malfunction: If PSCo is precluded from complying with any emissions limitations in Condition 15.2.1 because of a Malfunction, it may assert the existence of the Malfunction as an affirmative defense to an enforcement action provided that it has complied with all of the requirements related to Malfunctions found in Section V, Condition 3.d of this permit. All emissions, including those related to Malfunctions must be reported to the Division in accordance with Condition 15.4 (Voluntary Emissions Reduction Agreement, Paragraph 2.b).
- 15.2.3 Significant Control Equipment Failure: In the event of a Significant Control Equipment Failure at any Metro Unit, PSCo may continue to operate the Metro Unit subject to the Significant Control Failure but shall be excused from complying with, and shall not be subject to penalties for failure to comply with, the SO₂ emission limitation to the extent that its noncompliance is the result of the Significant Control Equipment Failure, provided that PSCo:
 - 15.2.3.1 Provides the Division with written notice of the Significant Control Equipment Failure within 15 working days after the date on which it first had knowledge of the Significant Control Equipment Failure; and
 - 15.2.3.2 Enters into an enforceable consent order with the Division, negotiated in good faith by both parties, requiring PSCo to return the control equipment at the affected Metro Unit to normal operation as soon as reasonably practicable. The consent order entered under this paragraph shall (1) establish a reasonable schedule for repairs of the control equipment; (2) require PSCo to implement measures to minimize emissions during the Significant Control Equipment Failure; and (3) establish an alternated SO₂ emissions limitation for the Metro Units not subject to the Significant Control Equipment Failure. If PSCo and the Division cannot agree to an

enforceable consent order after good faith negotiations, the Division may issue a compliance order without PSCo's consent. The issuance of such a unilateral compliance order and its terms will be subject to dispute resolution under Paragraph 10 of the Voluntary Emissions Reduction Agreement. During the negotiation of the consent order or resolution of any dispute regarding a unilateral compliance order, PSCo may continue to operate the Metro Unit subject to the Significant Control Equipment Failure even if such operation results in emissions in excess of the emission limitations contained in Condition 15.2.1 of this permit.

Notwithstanding the foregoing, the Division may, as appropriate, collect penalties for any violation of the emission limitations contained in Condition 15.2.1 of this permit to the extent such violation is caused by operation of a Metro Unit subject to a Significant Control Equipment Failure for a period of time in excess of 30 days. Nothing in the preceding sentence is intended to require the collection of such penalties or limit the Division's discretion to impose a penalty, if any, appropriate to the circumstances of the Significant Control Equipment Failure that exceeds thirty days in duration (Voluntary Emissions Reduction Agreement, Paragraph 2.c).

15.3 Regulatory Assurance Period

Pursuant to the Act, the Metro Units are each granted the following Regulatory Assurance until the following dates:

- 15.3.1 Fifteen years after the Compliance Date (January 1, 2003) for requirements to install additional pollution control equipment or implement additional pollution control strategies to reduce SO₂ emissions (Voluntary Emissions Reduction Agreement, Paragraph 5.a); and
- 15.3.2 Ten years after the Compliance Date for requirements to install additional pollution control equipment or implement additional pollution control strategies to reduce NO_x emissions (Voluntary Emissions Reduction Agreement, Paragraph 5.b).

15.4 Reporting and Recordkeeping

- 15.4.1 Beginning one year after the Compliance Date (January 1, 2003), and continuing each year thereafter, PSCo shall submit an annual emissions report to the Division 30 days after the end of the first quarter following the anniversary of the Compliance Date (January 1, 2003). The annual report shall describe (1) the total tons of SO₂ emitted from the Metro Units during the prior year; (2) PSCo's use, if any, of Banked Emission Credits to comply with the SO₂ emission limitations and (3) if PSCo uses the alternative emissions limitation set forth in Condition 15.2.1.2, the percent reduction of SO₂ calculated in accordance with the procedures in Appendix H of this permit. The annual report shall be in a form mutually agreeable to PSCo and the Division (Voluntary Emissions Reduction Agreement, Paragraph 7.a).

- 15.4.2 PSCo shall maintain records of all data and other information used to prepare its annual report for a period of five years after the date of the report (Voluntary Emissions Reduction Agreement, Paragraph 7.b).

16. Particulate Matter Emissions - Sources Supporting the SO₂ Control Systems

P011 - Two (2) Recycle Mixers

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
PM	16.1	N/A	0.25 tons/yr	0.058 lbs/hr	Recordkeeping and Calculation	Monthly
PM ₁₀		N/A	0.25 tons/yr	0.058 lbs/hr		
Hours of Operation	16.3	N/A	N/A	N/A	Recordkeeping	Monthly
Opacity	16.4	Less Than or Equal to 20%		N/A	See Condition 16.4.	

P009 - Two (2) Lime Storage Silos

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
PM	16.1	N/A	0.0073 tons/yr	0.61 lbs/ton	Recordkeeping and Calculation	Monthly
PM ₁₀			0.0073 tons/yr	0.61 lbs/ton		
Lime Processed	16.2	N/A	24,000 tons/yr	N/A	Recordkeeping	Monthly
Opacity	16.4	Less Than or Equal to 20%		N/A	See Condition 16.4.	

P010 - Two (2) Ball Mill Slakers

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
PM	16.1	N/A	0.25 tons/yr	0.058 lbs/hr	Recordkeeping and Calculation	Monthly
PM ₁₀		N/A	0.25 tons/yr	0.058 lbs/hr		
Hours of Operation	16.3	N/A	N/A	N/A	Recordkeeping	Monthly
Opacity	16.4	Less Than or Equal to 20%		N/A	See Condition 16.4	

- 16.1 Particulate Matter (PM and PM₁₀) emissions shall not exceed the above limitations (Colorado Construction Permits 00AD0810 (lime storage silos), as modified under the provisions of Section I, Condition 1.3, based on the APEN submitted on June 27, 2003, 00AD0811 (ball mill slakers) and 00AD0812 (recycle mixers). Monthly emissions shall be calculated using the quantity of material processed monthly (for the lime silos) or hours of operation (for the ball mill slakers and recycle mixers), and the above emission factors (EPA's Compilation of Emission Factors (AP-42), dated January 1995, Section 11.17 - for the lime silos and based on manufacturers' guarantees for recycle mixers and ball mill slakers converted to lbs/hr emission factors) in the following equations:

Lime Storage Silos

$$\text{tons/month} = \frac{\text{EF (lbs/ton)} \times \text{monthly processing rate (tons/month)}}{2000 \text{ lbs/ton}}$$

Note that a control efficiency of 99.9 % may be applied to the emission calculations for the silos, provided the silo baghouses are operated and maintained in accordance with manufacturers' recommendations and good engineering practices.

Ball Mill Slakers and Recycle Mixers

$$\text{Tons/mo} = \frac{\text{EF (lbs/hr)} \times \text{hours of operation}}{2000 \text{ lbs/ton}}$$

The emission factors for the recycle mixers and ball mill slakers are controlled emission factors. The scrubbers on the recycle mixers and ball mill slakers shall be operated and maintained in accordance with the manufacturers' recommendations and good engineering practices in order to use these emission factors.

Monthly emissions shall be used in a twelve month rolling total to monitor compliance with the annual emission limitations. Each month a new twelve month rolling total shall be calculated using the previous twelve months data.

- 16.2 The quantity of materials processed through the lime storage silos shall not exceed the above limitations (Colorado Construction Permits 00AD0810, as modified under the provisions of

Section I, Condition 1.3, based on the APEN submitted on June 27, 2003). The quantity of material processed through the recycle ash silos and lime storage silos will be monitored and recorded monthly. Monthly quantities of material processed shall be used to calculate emissions as required by Condition 16.1. The monthly quantity of material processed shall be maintained in a rolling twelve month total to monitor compliance with the annual limitations. Each month a new twelve month total shall be calculated using the previous twelve months data.

- 16.3 Hours of operation of the ball mill slakers and recycle mixers will be monitored and recorded monthly. Monthly hours of operation shall be used to calculate emissions as required by Condition 16.1.
- 16.4 Opacity of emissions **from each** silo, mixer and slaker exhaust point shall not exceed 20% (Colorado Construction Permits 00AD0810 (lime silos), 00AD0811 (ball mill slakers) and 00AD0812 (recycle mixers)). Compliance with the opacity requirement shall be monitored as follows:
- 16.4.1 In the absence of credible evidence to the contrary, each silo shall be presumed to be in compliance with the 20% opacity limit provided each silo baghouse is operated and maintained in accordance with manufacturers' recommendations and good engineering practices.
- 16.4.2 In the absence of credible evidence to the contrary, each recycle mixer and ball mill slaker and their associated scrubbers shall be presumed to be in compliance with the 20% opacity limit provided the scrubbers are operated and maintained in accordance with the manufacturers' recommendations and good engineering practices.

17. E003 - Diesel Fuel Fired Internal Combustion Engine Powering an Emergency Fire Pump

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
NSPS Subpart III Requirements	17.1	NO _x + NMHC – 3.0 g/hp-hr PM – 0.15 g/hp-hr		N/A	See Condition 17.1.	
Hours of Operation	17.2	N/A	500 hrs/yr	N/A	Recordkeeping	Monthly
RACT – VOC emissions	17.3	Compliance with the NSPS Subpart III Requirements is Determined to be RACT		N/A	Certification	Annually
RACT – NO _x , PM ₁₀ and CO	17.4	Compliance with the NSPS Subpart III Requirements is Determined to be RACT		N/A	Certification	Annually
Opacity	17.5	Not to Exceed 20% Except as Provided for Below		N/A	EPA Method 9	See Condition 17.5
		For Startup – Not to Exceed 30%, for a Period or Periods Aggregating More than Six (6) Minutes in any 60 Consecutive Minutes				
MACT Subpart ZZZZ Requirements	17.6	Compliance with MACT met by complying with NSPS Subpart III		N/A	See Condition 17.6	
Compliance Certification	17.7	Certify Compliance within 180 Days of Startup		N/A	Certification	Within 180 Days

- 17.1 This engine is subject to the requirements in 40 CFR Part 60 Subpart III, “Standards of Performance for Stationary Compression Ignition Internal Combustion Engines”, as adopted by reference in Colorado Regulation No. 6, Part A, including but not limited to the following requirements:

The requirements below reflect the language in 40 CFR Part 60 Subpart III as of the date of revised permit issuance [December 26, 2012]. However, these engines are subject to the latest version of Subpart III.

Proposed revisions to the 40 CFR Part 60 Subpart III were published in the Federal Register on June 7, 2012. Under the proposed revisions changes to Condition 17.1.3 (allows existing diesel fuel purchased/obtained prior to October 1, 2010 to be used until depleted) and Condition 17.1.8 (allows emergency engines to be used for demand response within the 100 hrs/yr limit). Therefore, these requirements may change in the future when the proposed rule is finalized.

What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine? (§ 60.4205)

- 17.1.1 Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants. (§ 60.4205(c))

The specific emission limitations in table 4 that apply to this engine are as follows:

Maximum Engine Power $175 \leq \text{hp} < 300$		
Model Year 2009 and later		
Emission Standards (g/hp-hr)		
NMHC + NO _x	CO	PM
3.0	--	0.15

How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine? (§ 60.4206)

- 17.1.2 Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine. (§ 60.4206)

What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart? (§ 60.4207)

- 17.1.3 Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel. (§ 60.4207(a))

The fuel limitations in 80.510(b) are: sulfur content of 15 ppm maximum for NR diesel fuel and 500 ppm maximum for LM diesel fuel and a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

Compliance with the fuel limitations shall be monitored by sampling and analyzing each shipment of diesel fuel to determine the sulfur and cetane and/or aromatic content using appropriate ASTM methods, or equivalent if approved in advance by the Division. In lieu of sampling, vendor data may be used to verify that the diesel fuel delivered meets the sulfur and cetane and/or aromatic requirements.

What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine? (§ 60.4209)

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

- 17.1.4 If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine. (§ 60.4209(a))
- 17.1.5 If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. (§ 60.4209(b))

What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine? (§ 60.4211)

- 17.1.6 If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under § 60.4211(g) (Condition 17.1.9):
 - 17.1.6.1 Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
 - 17.1.6.2 Change only those emission-related settings that are permitted by the manufacturer; and
 - 17.1.6.3 Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you. (§ 60.4211(a)(1) – (3))
- 17.1.7 If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in § 60.4211(g) (Condition 17.1.9). (§ 60.4211(c))
- 17.1.8 Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing,

but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited. (§ 60.4211(f))

- 17.1.9 If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as specified in § 60.4211(g)(1) through (3), as applicable. (§ 60.4211(g))

What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine? (§ 60.4214)

- 17.1.10 If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time. (§ 60.4214(b))

- 17.1.11 If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached. (§ 60.4214(c))

What parts of the general provisions apply to me? (§ 60.4218)

- 17.1.12 Table 8 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you. (§ 60.4218)

The relevant general provisions are as follows:

- 17.1.12.1 No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of

gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gasses discharged to the atmosphere (§ 60.12).

- 17.2 Hours of operation shall not exceed 500 hours per year. (as provided for under the provisions in Section I, Condition 1.3 and Colorado Regulation No. 3, Part B, Section II.A.6 and Part C, Section X based on hours of operation noted in the application submitted on February 13, 2012). Compliance with the annual limitation shall be monitored by recording the hours of operation monthly. Monthly hours of operation shall be used in a rolling twelve month total to monitor compliance with the annual limitation. Each month a new twelve month rolling total shall be calculated using the permit twelve months data.
- 17.3 This engine is subject to RACT requirements for VOC emissions (Colorado Regulation No. 3, Part B, Section III.D.2.a and Colorado Regulation No. 7, Section II.C.2). RACT for VOC shall be met by complying with the requirements in 40 CFR Part 60 Subpart IIII (Condition 17.1 of this permit).
- 17.4 This engine is subject to RACT requirements for NO_x, PM₁₀ and CO emissions (Colorado Regulation No. 3, Part B, Section III.D.2.a). RACT for NO_x, PM₁₀ and CO shall be met by complying with the requirements in 40 CFR Part 60 Subpart IIII (Condition 17.1 of this permit).
- 17.5 Opacity of emissions from this engine shall not exceed the following:
- 17.5.1 Except as provided for in Condition 17.5.1 below, no owner or operator of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section II.A.1).
- 17.5.2 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from startup which is in excess of 30% opacity for a period or periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Regulation No. 1, Section II.A.4).

Compliance with these limitations shall be monitored by conducting visual emission observations in accordance with EPA Reference Method 9 as follows:

- 17.5.3 Engine startup shall not exceed 30 minutes. An engine startup period of less than 30 minutes shall not require an opacity observation to monitor compliance with the opacity limit in Condition 17.5.2. A record shall be kept of the date and time the engine started and when it was shutdown.
- 17.5.4 An opacity observation shall be conducted annually (calendar year period) to monitor compliance with the opacity limit in Condition 17.5.1. If the engine is operated more than 250 hours in any calendar year period, a second opacity observation shall be conducted. If two opacity readings are conducted in the annual (calendar year) period, such readings shall be conducted at least thirty days apart.

- 17.5.5 If the engine is not operated during the annual (calendar year) period, then no opacity observations are required.
- 17.5.6 Subject to the provisions of C.R.S. 25-7-123.1 and in the absence of credible evidence to the contrary, exceedance of the opacity limit shall be considered to exist from the time a Method 9 reading is taken that shows an exceedance of the opacity limit until a Method 9 reading is taken that shows the opacity is less than the opacity limit.
- 17.5.7 All Method 9 opacity observations shall be performed by an observer with current and valid Method 9 certification. Results of Method 9 readings and a copy of the certified Method 9 reader's certificate shall be kept on site and made available to the Division upon request.
- 17.6 This engine is subject to the requirements in 40 CFR Part 63 Subpart ZZZZ, "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines", as follows:
- Note that as of the date of revised permit issuance [December 26, 2012], the requirements in 40 CFR Part 63 Subpart ZZZZ promulgated after July 1, 2007 have not been adopted into Colorado Regulation No. 8, Part E by the Division and are therefore not state-enforceable. In the event that the Division adopts these requirements, these requirements will become both state and federally enforceable.
- A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions must meet the requirements of this part by meeting the requirements of 40 CFR Part 60 Subpart IIII, for compression ignition engines. No further requirements apply for such engines under this part. (§ 63.6590(c)(7))
- 17.7 Within one hundred eighty (180) calendar days after commencement of operation, the permittee shall certify compliance with the conditions in this Section II.17 of this permit (Colorado Regulation No. 3, Part B, Section III.G.2). Submittal of the first required semi-annual monitoring report (Appendix B), after startup of this unit shall serve as the self-certification that the newly installed engine can comply with the conditions in this Section II.17 of this permit. Note that the startup notice indicated that this unit commenced operation on September 28, 2012.

18. M002 – Safety Kleen Cold Cleaner Solvent Vat

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
Work Practice Standards	18.1	N/A	N/A	N/A	Internal Audit	Annually
Transfer and Storage of Waste/Used Solvents	18.2	N/A	N/A	N/A	Certification	Annually

Note that this emission unit is exempt from the APEN reporting requirements in Regulation No. 3, Part A and the construction permit requirements in Regulation No. 3, Part B.

- 18.1 Operation of the cold cleaner solvent vat shall meet the standards defined in Colorado Regulation 7, Section X.B. Compliance shall be monitored by following the work practices defined in Public Service Company's Policy Manual regarding operation, maintenance and design of the cold cleaner solvent vats. The Policy Manual shall include, at a minimum the requirements defined in Colorado Regulation 7, Section X.B and shall be available to the inspector upon request. Audits of the vat operations and/or the policy manual shall be performed annually to ensure that operations are performed within the requirements of the policy manual and that the policy manual incorporates the requirements of Regulation 7, Section X.B. Audit reports are to be maintained and made available to the Division upon request.
- 18.2 The transfer and storage of waste and used solvents from the cold cleaner solvent vats are subject to the following requirements (Colorado Regulation No. 7, Section X.A.3 and 4):
 - 18.2.1 In any disposal or transfer of waste or used solvent, at least 80 percent by weight of the solvent/waste liquid shall be retained (i.e., no more than 20 percent of the liquid solvent/solute mixture shall evaporate or otherwise be lost during transfers).
 - 18.2.2 Waste or used solvents shall be stored in closed containers unless otherwise required by law.

SECTION III - Acid Rain Requirements

1. Designated Representative and Alternate Designated Representative

Designated Representative:

Name: Mark Fox
Title: General Manager,
Power Generation, CO
Phone: (303) 440-2539

Alternate Designated Representative:

Name: Gary Magno
Title: Manager Environmental Services -
Air Quality Compliance
Phone: (303) 294-2177

2. Sulfur Dioxide Emission Allowances and Nitrogen Oxide Emission Limitations

Unit	2010	2011	2012	2013	2014	2015
Unit 3 - SO₂ Allowances, per 40 CFR Part 73.10(b), Table 2	3730*	3730*	3730*	3730*	3730*	3730*
Unit 3 - NO_x Limits, per 40 CFR Part 76.7	0.46 lbs/MMBtu	0.46 lbs/MMBtu	0.46 lbs/MMBtu	0.46 lbs/MMBtu	0.46 lbs/MMBtu	0.46 lbs/MMBtu
Unit 4 - SO₂ Allowances, per 40 CFR Part 73.10(b), Table 2	7475*	7475*	7475*	7475*	7475*	7475*
Unit 4 - NO_x Limits, per 40 CFR Part 76.7	0.40 lbs/MMBtu	0.40 lbs/MMBtu	0.40 lbs/MMBtu	0.40 lbs/MMBtu	0.40 lbs/MMBtu	0.40 lbs/MMBtu

* Under the provisions of §72.84(a) any allowance allocations to, transfers to and deductions from an affected unit's Allowance Tracking System account is considered an automatic permit amendment and as such no revision to the permit is necessary. Numerical allowances shown in this table are from the 1996 edition of the CFR.

3. Standard Requirements

Units 3 and 4 of this facility are subject to and the source has certified that they will comply with the following standard conditions.

Permit Requirements.

- (1) The designated representative of each affected source and each affected unit at the source shall:
 - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
 - (ii) Submit in a timely manner any supplemental information that the Division determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:

- (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the Division; and
- (ii) Have an Acid Rain Permit.

Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Federal Clean Air Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each affected unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Federal Clean Air Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

- (1) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan to the Administrator of the U. S. EPA, as required under 40 CFR part 77.
- (2) The owners and operators of an affected unit that has excess emissions in any calendar year shall:
 - (i) Pay without demand, to the Administrator of the U. S. EPA, the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or the Division:
 - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
 - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability.

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Federal Clean Air Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Federal Clean Air Act and 18 U.S.C. 1001.

- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Federal Clean Air Act.

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

- (1) Except as expressly provided in title IV of the Federal Clean Air Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Federal Clean Air Act, including the provisions of title I of the Federal Clean Air Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Federal Clean Air Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

4. Reporting Requirements

Reports shall be submitted to the addresses identified in Appendix D.

Pursuant to 40 CFR Part 75.64 quarterly reports and compliance certification requirements shall be submitted to the Administrator **within 30 days after the end of the calendar quarter**. The contents of these reports shall meet the requirements of 40 CFR 75.64.

Pursuant to 40 CFR Part 75.65 excess emissions of opacity shall be reported to the Division. These reports shall be submitted in a format approved by the Division.

Revisions to this permit shall be made in accordance with 40 CFR Part 72, Subpart H, §§ 72.80 through 72.85 (as adopted by reference in Colorado Regulation 18). Permit modification requests shall be submitted to the Division at the address identified in Appendix D.

Changes to the Designated Representative or Alternate Designated Representative shall be made in accordance with 40 CFR 72.23.

SECTION IV - Permit Shield

Regulation No. 3, 5 CCR 1001-5, Part C, §§ I.A.4, V.D., & XIII.B and § 25-7-114.4(3)(a), C.R.S.

1. Specific Non-Applicable Requirements

Based on the information available to the Division and supplied by the applicant, the following parameters and requirements have been specifically identified as non-applicable to the facility to which this permit has been issued. This shield does not protect the source from any violations that occurred prior to or at the time of permit issuance. In addition, this shield does not protect the source from any violations that occur as a result of any modifications or reconstruction on which construction commenced prior to permit issuance.

Emission Unit Description & Number	Applicable Requirement	Justification
B003 and B004	40 CFR Part 60, Subparts D, Da, Db, and Dc (as adopted by reference in Colorado Regulation No. 6, Part A)	These requirements are not applicable as construction commenced prior to August 17, 1971 (D, Da, Db and Dc) and the boilers at this facility are not small industrial-commercial-institutional steam generating units (Dc).
F001 and P004	40 CFR Part 60, Subpart Y (as adopted by reference in Colorado Regulation No. 6, Part A)	These requirements are not applicable because the facility (coal preparation) commenced construction prior to October 24, 1974.
B003 and B004	Colorado Regulation No. 6, Part B, Section II	These requirements are not applicable as construction commenced prior to January 30, 1979.
E001 and E002	Colorado Regulation No. 6, Part B, Section II	These requirements are not applicable as emergency generators are not, by definition, "fuel burning equipment".
M001	40 CFR Part 63, Subpart Q (as adopted by reference in Colorado Regulation No. 8, Part E)	These requirements are not applicable because the cooling towers do not use chromium-based water treatment chemicals.

2. General Conditions

Compliance with this Operating Permit shall be deemed compliance with all applicable requirements specifically identified in the permit and other requirements specifically identified in the permit as not applicable to the source. This permit shield shall not alter or affect the following:

- 2.1 The provisions of §§ 25-7-112 and 25-7-113, C.R.S., or § 303 of the federal act, concerning enforcement in cases of emergency;
- 2.2 The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- 2.3 The applicable requirements of the federal Acid Rain Program, consistent with § 408(a) of the federal act;

- 2.4 The ability of the Air Pollution Control Division to obtain information from a source pursuant to § 25-7-111(2)(I), C.R.S., or the ability of the Administrator to obtain information pursuant to § 114 of the federal act;
- 2.5 The ability of the Air Pollution Control Division to reopen the Operating Permit for cause pursuant to Regulation No. 3, Part C, § XIII.
- 2.6 Sources are not shielded from terms and conditions that become applicable to the source subsequent to permit issuance.

3. Streamlined Conditions

The following applicable requirements have been subsumed within this operating permit using the pertinent streamlining procedures approved by the U.S. EPA. For purposes of the permit shield, compliance with the listed permit conditions will also serve as a compliance demonstration for purposes of the associated subsumed requirements.

Permit Condition(s)	Streamlined (Subsumed) Requirements
Section II, Condition 1.3	Colorado Regulation No. 1, Section VI.A.3.a.(ii) and Colorado Construction Permit No. 86AD352-2, condition 6 (Unit 4) [SO ₂ emissions not to exceed 1.2 lbs/MMBtu]
Section II, Conditions 10.1, 10.2, 10.3 & 10.4	Colorado Regulation No. 1, Sections IV.A & B [continuous emission monitoring requirements]
Section II, Condition 17.1.3.	Colorado Regulation No. 1, Section VI.B.4.b.(i) [SO ₂ emissions not to exceed 0.8 lb/MMBtu]
Section II, Conditions 10.1, 10.2, 10.3 & 10.4	Colorado Regulation No. 1, Section VII.A.1.a [ONLY the continuous emission monitoring requirements, EXCEPT that 40 CFR Part 60 Subpart A § 60.13(d) applies to the continuous opacity monitors]
Section II, Conditions 10.3.2 & 10.4.2	Colorado Regulation No. 1, Section IV.F [continuous emission monitoring system calibration requirements]
Section II, Condition 10.4.3 and Section V, Conditions 22.b and c	Colorado Regulation No. 1, Section IV.H [record retention for continuous emission monitors]
Section II, Condition 10.4	Colorado Construction Permit 86AD352-2, condition 3 (Unit 4) [ONLY the requirement to monitor opacity in accordance with Colorado Regulation No. 1, Section IV.B.1 (COMs)]
Section II, Conditions 10.1, 10.2, 10.3 & 10.4	Colorado Construction Permit 86AD352-2, condition 5 (Unit 4) [ONLY the requirement to operate the continuous emission monitor in accordance with the requirements in Colorado Regulation No. 1, Section IV.B)]
Section II, Condition 10.5	Colorado Construction Permit 86AD352-2, condition 4 (Unit 4) [reporting excess emissions]

SECTION V - General Permit Conditions

5/22/12 version

1. Administrative Changes

Regulation No. 3, 5 CCR 1001-5, Part A, § III.

The permittee shall submit an application for an administrative permit amendment to the Division for those permit changes that are described in Regulation No. 3, Part A, § I.B.1. The permittee may immediately make the change upon submission of the application to the Division.

2. Certification Requirements

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.9., V.C.16.a.& e. and V.C.17.

- a. Any application, report, document and compliance certification submitted to the Air Pollution Control Division pursuant to Regulation No. 3 or the Operating Permit shall contain a certification by a responsible official of the truth, accuracy and completeness of such form, report or certification stating that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
- b. All compliance certifications for terms and conditions in the Operating Permit shall be submitted to the Air Pollution Control Division at least annually unless a more frequent period is specified in the applicable requirement or by the Division in the Operating Permit.
- c. Compliance certifications shall contain:
 - (i) the identification of each permit term and condition that is the basis of the certification;
 - (ii) the compliance status of the source;
 - (iii) whether compliance was continuous or intermittent;
 - (iv) method(s) used for determining the compliance status of the source, currently and over the reporting period; and
 - (v) such other facts as the Air Pollution Control Division may require to determine the compliance status of the source.
- d. All compliance certifications shall be submitted to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit.
- e. If the permittee is required to develop and register a risk management plan pursuant to § 112(r) of the federal act, the permittee shall certify its compliance with that requirement; the Operating Permit shall not incorporate the contents of the risk management plan as a permit term or condition.

3. Common Provisions

Common Provisions Regulation, 5 CCR 1001-2 §§ II.A., II.B., II.C., II.E., II.F., II.I, and II.J

- a. To Control Emissions Leaving Colorado

When emissions generated from sources in Colorado cross the State boundary line, such emissions shall not cause the air quality standards of the receiving State to be exceeded, provided reciprocal action is taken by the receiving State.

b. Emission Monitoring Requirements

The Division may require owners or operators of stationary air pollution sources to install, maintain, and use instrumentation to monitor and record emission data as a basis for periodic reports to the Division.

c. Performance Testing

The owner or operator of any air pollution source shall, upon request of the Division, conduct performance test(s) and furnish the Division a written report of the results of such test(s) in order to determine compliance with applicable emission control regulations.

Performance test(s) shall be conducted and the data reduced in accordance with the applicable reference test methods unless the Division:

- (i) specifies or approves, in specific cases, the use of a test method with minor changes in methodology;
- (ii) approves the use of an equivalent method;
- (iii) approves the use of an alternative method the results of which the Division has determined to be adequate for indicating where a specific source is in compliance; or
- (iv) waives the requirement for performance test(s) because the owner or operator of a source has demonstrated by other means to the Division's satisfaction that the affected facility is in compliance with the standard. Nothing in this paragraph shall be construed to abrogate the Commission's or Division's authority to require testing under the Colorado Revised Statutes, Title 25, Article 7, and pursuant to regulations promulgated by the Commission.

Compliance test(s) shall be conducted under such conditions as the Division shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Division such records as may be necessary to determine the conditions of the performance test(s). Operations during period of startup, shutdown, and malfunction shall not constitute representative conditions of performance test(s) unless otherwise specified in the applicable standard.

The owner or operator of an affected facility shall provide the Division thirty days prior notice of the performance test to afford the Division the opportunity to have an observer present. The Division may waive the thirty day notice requirement provided that arrangements satisfactory to the Division are made for earlier testing.

The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

- (i) Sampling ports adequate for test methods applicable to such facility;
- (ii) Safe sampling platform(s);
- (iii) Safe access to sampling platform(s); and
- (iv) Utilities for sampling and testing equipment.

Each performance test shall consist of at least three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of results of at least three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other

circumstances beyond the owner or operator's control, compliance may, upon the Division's approval, be determined using the arithmetic mean of the results of the two other runs.

Nothing in this section shall abrogate the Division's authority to conduct its own performance test(s) if so warranted.

d. Affirmative Defense Provision for Excess Emissions during Malfunctions

An affirmative defense to a claim of violation under these regulations is provided to owners and operators for civil penalty actions for excess emissions during periods of malfunction. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements below in a timely manner and prove by a preponderance of evidence that:

- (i) The excess emissions were caused by a sudden, unavoidable breakdown of equipment, or a sudden, unavoidable failure of a process to operate in the normal or usual manner, beyond the reasonable control of the owner or operator;
- (ii) The excess emissions did not stem from any activity or event that could have reasonably been foreseen and avoided, or planned for, and could not have been avoided by better operation and maintenance practices;
- (iii) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded;
- (iv) The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions;
- (v) All reasonably possible steps were taken to minimize the impact of the excess emissions on ambient air quality;
- (vi) All emissions monitoring systems were kept in operation (if at all possible);
- (vii) The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence;
- (viii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
- (ix) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This section is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement; and
- (x) During the period of excess emissions, there were no exceedances of the relevant ambient air quality standards established in the Commissions' Regulations that could be attributed to the emitting source.

The owner or operator of the facility experiencing excess emissions during a malfunction shall notify the division verbally as soon as possible, but no later than noon of the Division's next working day, and shall submit written notification following the initial occurrence of the excess emissions by the end of the source's next reporting period. The notification shall address the criteria set forth above.

The Affirmative Defense Provision contained in this section shall not be available to claims for injunctive relief.

The Affirmative Defense Provision does not apply to failures to meet federally promulgated performance standards or emission limits, including, but not limited to, new source performance standards and national emission standards for hazardous air pollutants. The affirmative defense provision does not apply to state implementation plan (sip) limits or permit limits that have been set taking into account potential emissions during malfunctions, including, but

not necessarily limited to, certain limits with 30-day or longer averaging times, limits that indicate they apply during malfunctions, and limits that indicate they apply at all times or without exception.

e. Circumvention Clause

A person shall not build, erect, install, or use any article, machine, equipment, condition, or any contrivance, the use of which, without resulting in a reduction in the total release of air pollutants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of this regulation. No person shall circumvent this regulation by using more openings than is considered normal practice by the industry or activity in question.

f. Compliance Certifications

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in the Colorado State Implementation Plan, nothing in the Colorado State Implementation Plan shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. Evidence that has the effect of making any relevant standard or permit term more stringent shall not be credible for proving a violation of the standard or permit term.

When compliance or non-compliance is demonstrated by a test or procedure provided by permit or other applicable requirement, the owner or operator shall be presumed to be in compliance or non-compliance unless other relevant credible evidence overcomes that presumption.

g. Affirmative Defense Provision for Excess Emissions During Startup and Shutdown

An affirmative defense is provided to owners and operators for civil penalty actions for excess emissions during periods of startup and shutdown. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements below in a timely manner and prove by a preponderance of the evidence that:

- (i) The periods of excess emissions that occurred during startup and shutdown were short and infrequent and could not have been prevented through careful planning and design;
- (ii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation or maintenance;
- (iii) If the excess emissions were caused by a bypass (an intentional diversion of control equipment), then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- (iv) The frequency and duration of operation in startup and shutdown periods were minimized to the maximum extent practicable;
- (v) All possible steps were taken to minimize the impact of excess emissions on ambient air quality;
- (vi) All emissions monitoring systems were kept in operation (if at all possible);
- (vii) The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence; and,
- (viii) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This subparagraph is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement.

The owner or operator of the facility experiencing excess emissions during startup and shutdown shall notify the Division verbally as soon as possible, but no later than two (2) hours after the start of the next working day, and shall

submit written quarterly notification following the initial occurrence of the excess emissions. The notification shall address the criteria set forth above.

The Affirmative Defense Provision contained in this section shall not be available to claims for injunctive relief.

The Affirmative Defense Provision does not apply to State Implementation Plan provisions or other requirements that derive from new source performance standards or national emissions standards for hazardous air pollutants, or any other federally enforceable performance standard or emission limit with an averaging time greater than twenty-four hours. In addition, an affirmative defense cannot be used by a single source or small group of sources where the excess emissions have the potential to cause an exceedance of the ambient air quality standards or Prevention of Significant Deterioration (PSD) increments.

In making any determination whether a source established an affirmative defense, the Division shall consider the information within the notification required above and any other information the Division deems necessary, which may include, but is not limited to, physical inspection of the facility and review of documentation pertaining to the maintenance and operation of process and air pollution control equipment.

4. Compliance Requirements

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.C.9., V.C.11. & 16.d. and § 25-7-122.1(2), C.R.S.

- a. The permittee must comply with all conditions of the Operating Permit. Any permit noncompliance relating to federally-enforceable terms or conditions constitutes a violation of the federal act, as well as the state act and Regulation No. 3. Any permit noncompliance relating to state-only terms or conditions constitutes a violation of the state act and Regulation No. 3, shall be enforceable pursuant to state law, and shall not be enforceable by citizens under § 304 of the federal act. Any such violation of the federal act, the state act or regulations implementing either statute is grounds for enforcement action, for permit termination, revocation and reissuance or modification or for denial of a permit renewal application.
- b. It shall not be a defense for a permittee in an enforcement action or a consideration in favor of a permittee in a permit termination, revocation or modification action or action denying a permit renewal application that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- c. The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of any request by the permittee for a permit modification, revocation and reissuance, or termination, or any notification of planned changes or anticipated noncompliance does not stay any permit condition, except as provided in §§ X. and XI. of Regulation No. 3, Part C.
- d. The permittee shall furnish to the Air Pollution Control Division, within a reasonable time as specified by the Division, any information that the Division may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Division copies of records required to be kept by the permittee, including information claimed to be confidential. Any information subject to a claim of confidentiality shall be specifically identified and submitted separately from information not subject to the claim.
- e. Any schedule for compliance for applicable requirements with which the source is not in compliance at the time of permit issuance shall be supplemental, and shall not sanction noncompliance with, the applicable requirements on which it is based.
- f. For any compliance schedule for applicable requirements with which the source is not in compliance at the time of permit issuance, the permittee shall submit, at least every 6 months unless a more frequent period is specified in the applicable requirement or by the Air Pollution Control Division, progress reports which contain the following:

- (i) dates for achieving the activities, milestones, or compliance required in the schedule for compliance, and dates when such activities, milestones, or compliance were achieved; and
 - (ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- g. The permittee shall not knowingly falsify, tamper with, or render inaccurate any monitoring device or method required to be maintained or followed under the terms and conditions of the Operating Permit.

5. Emergency Provisions

Regulation No. 3, 5 CCR 1001-5, Part C, § VII.

An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed the technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. "Emergency" does not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. An emergency constitutes an affirmative defense to an enforcement action brought for noncompliance with a technology-based emission limitation if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- a. an emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. the permitted facility was at the time being properly operated;
- c. during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- d. the permittee submitted oral notice of the emergency to the Air Pollution Control Division no later than noon of the next working day following the emergency, and followed by written notice within one month of the time when emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

This emergency provision is in addition to any emergency or malfunction contained in any applicable requirement.

6. Emission Controls for Asbestos

Regulation No. 8, 5 CCR 1001-10, Part B

The permittee shall not conduct any asbestos abatement activities except in accordance with the provisions of Regulation No. 8, Part B, "asbestos control."

7. Emissions Trading, Marketable Permits, Economic Incentives

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.13.

No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are specifically provided for in the permit.

8. Fee Payment

C.R.S §§ 25-7-114.1(6) and 25-7-114.7

- a. The permittee shall pay an annual emissions fee in accordance with the provisions of C.R.S. § 24-7-114.7. A 1% per month late payment fee shall be assessed against any invoice amounts not paid in full on the 91st day after the date of invoice, unless a permittee has filed a timely protest to the invoice amount.
- b. The permittee shall pay a permit processing fee in accordance with the provisions of C.R.S. § 25-7-114.7. If the Division estimates that processing of the permit will take more than 30 hours, it will notify the permittee of its estimate of what the actual charges may be prior to commencing any work exceeding the 30 hour limit.
- c. The permittee shall pay an APEN fee in accordance with the provisions of C.R.S. § 25-7-114.1(6) for each APEN or revised APEN filed.

9. Fugitive Particulate Emissions

Regulation No. 1, 5 CCR 1001-3, § III.D.1.

The permittee shall employ such control measures and operating procedures as are necessary to minimize fugitive particulate emissions into the atmosphere, in accordance with the provisions of Regulation No. 1, § III.D.1.

10. Inspection and Entry

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.16.b.

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Air Pollution Control Division, or any authorized representative, to perform the following:

- a. enter upon the permittee's premises where an Operating Permit source is located, or emissions-related activity is conducted, or where records must be kept under the terms of the permit;
- b. have access to, and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- c. inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the Operating Permit;
- d. sample or monitor at reasonable times, for the purposes of assuring compliance with the Operating Permit or applicable requirements, any substances or parameters.

11. Minor Permit Modifications

Regulation No. 3, 5 CCR 1001-5, Part C, §§ X. & XI.

The permittee shall submit an application for a minor permit modification before making the change requested in the application. The permit shield shall not extend to minor permit modifications.

12. New Source Review

Regulation No. 3, 5 CCR 1001-5, Part B

The permittee shall not commence construction or modification of a source required to be reviewed under the New Source Review provisions of Regulation No. 3, Part B, without first receiving a construction permit.

13. No Property Rights Conveyed

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.11.d.

This permit does not convey any property rights of any sort, or any exclusive privilege.

14. Odor

Regulation No. 2, 5 CCR 1001-4, Part A

As a matter of state law only, the permittee shall comply with the provisions of Regulation No. 2 concerning odorous emissions.

15. Off-Permit Changes to the Source

Regulation No. 3, 5 CCR 1001-5, Part C, § XII.B.

The permittee shall record any off-permit change to the source that causes the emissions of a regulated pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from the change, including any other data necessary to show compliance with applicable ambient air quality standards. The permittee shall provide contemporaneous notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit. The permit shield shall not apply to any off-permit change.

16. Opacity

Regulation No. 1, 5 CCR 1001-3, §§ I., II.

The permittee shall comply with the opacity emissions limitation set forth in Regulation No. 1, §§ I.-II.

17. Open Burning

Regulation No. 9, 5 CCR 1001-11

The permittee shall obtain a permit from the Division for any regulated open burning activities in accordance with provisions of Regulation No. 9.

18. Ozone Depleting Compounds

Regulation No. 15, 5 CCR 1001-17

The permittee shall comply with the provisions of Regulation No. 15 concerning emissions of ozone depleting compounds. Sections I., II.C., II.D., III. IV., and V. of Regulation No. 15 shall be enforced as a matter of state law only.

19. Permit Expiration and Renewal

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.6., IV.C., V.C.2.

- a. The permit term shall be five (5) years. The permit shall expire at the end of its term. Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted.
- b. Applications for renewal shall be submitted at least twelve months, but not more than 18 months, prior to the expiration of the Operating Permit. An application for permit renewal may address only those portions of the permit that require revision, supplementing, or deletion, incorporating the remaining permit terms by reference from the previous permit. A copy of any materials incorporated by reference must be included with the application.

20. Portable Sources

Regulation No. 3, 5 CCR 1001-5, Part C, § II.D.

Portable Source permittees shall notify the Air Pollution Control Division at least 10 days in advance of each change in location.

21. Prompt Deviation Reporting

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.7.b.

The permittee shall promptly report any deviation from permit requirements, including those attributable to malfunction as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken.

“Prompt” is defined as follows:

- a. Any definition of “prompt” or a specific timeframe for reporting deviations provided in an underlying applicable requirement as identified in this permit; or
- b. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations will be submitted based on the following schedule:
 - (i) For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in the applicable regulation) that continue for more than an hour in excess of permit requirements, the report shall be made within 24 hours of the occurrence;
 - (ii) For emissions of any regulated air pollutant, excluding a hazardous air pollutant or a toxic air pollutant that continue for more than two hours in excess of permit requirements, the report shall be made within 48 hours; and
 - (iii) For all other deviations from permit requirements, the report shall be submitted every six (6) months, except as otherwise specified by the Division in the permit in accordance with paragraph 22.d. below.
- c. If any of the conditions in paragraphs b.i or b.ii above are met, the source shall notify the Division by telephone (303-692-3155) or facsimile (303-782-0278) based on the timetables listed above. *[Explanatory note: Notification by telephone or facsimile must specify that this notification is a deviation report for an Operating Permit.]* A written notice, certified consistent with General Condition 2.a. above (Certification Requirements), shall be submitted within 10 working days of the occurrence. All deviations reported under this section shall also be identified in the 6-month report required above.

“Prompt reporting” does not constitute an exception to the requirements of "Emergency Provisions" for the purpose of avoiding enforcement actions.

22. Record Keeping and Reporting Requirements

Regulation No. 3, 5 CCR 1001-5, Part A, § II.; Part C, §§ V.C.6., V.C.7.

- a. Unless otherwise provided in the source specific conditions of this Operating Permit, the permittee shall maintain compliance monitoring records that include the following information:
 - (i) date, place as defined in the Operating Permit, and time of sampling or measurements;
 - (ii) date(s) on which analyses were performed;

- (iii) the company or entity that performed the analysis;
 - (iv) the analytical techniques or methods used;
 - (v) the results of such analysis; and
 - (vi) the operating conditions at the time of sampling or measurement.
- b. The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report or application. Support information, for this purpose, includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Operating Permit. With prior approval of the Air Pollution Control Division, the permittee may maintain any of the above records in a computerized form.
- c. Permittees must retain records of all required monitoring data and support information for the most recent twelve (12) month period, as well as compliance certifications for the past five (5) years on-site at all times. A permittee shall make available for the Air Pollution Control Division's review all other records of required monitoring data and support information required to be retained by the permittee upon 48 hours advance notice by the Division.
- d. The permittee shall submit to the Air Pollution Control Division all reports of any required monitoring at least every six (6) months, unless an applicable requirement, the compliance assurance monitoring rule, or the Division requires submission on a more frequent basis. All instances of deviations from any permit requirements must be clearly identified in such reports.
- e. The permittee shall file an Air Pollutant Emissions Notice ("APEN") prior to constructing, modifying, or altering any facility, process, activity which constitutes a stationary source from which air pollutants are or are to be emitted, unless such source is exempt from the APEN filing requirements of Regulation No. 3, Part A, § II.D. A revised APEN shall be filed annually whenever a significant change in emissions, as defined in Regulation No. 3, Part A, § II.C.2., occurs; whenever there is a change in owner or operator of any facility, process, or activity; whenever new control equipment is installed; whenever a different type of control equipment replaces an existing type of control equipment; whenever a permit limitation must be modified; or before the APEN expires. An APEN is valid for a period of five years. The five-year period recommences when a revised APEN is received by the Air Pollution Control Division. Revised APENs shall be submitted no later than 30 days before the five-year term expires. Permittees submitting revised APENs to inform the Division of a change in actual emission rates must do so by April 30 of the following year. Where a permit revision is required, the revised APEN must be filed along with a request for permit revision. APENs for changes in control equipment must be submitted before the change occurs. Annual fees are based on the most recent APEN on file with the Division.

23. Reopenings for Cause

Regulation No. 3, 5 CCR 1001-5, Part C, § XIII.

- a. The Air Pollution Control Division shall reopen, revise, and reissue Operating Permits; permit reopenings and reissuance shall be processed using the procedures set forth in Regulation No. 3, Part C, § III., except that proceedings to reopen and reissue permits affect only those parts of the permit for which cause to reopen exists.
- b. The Division shall reopen a permit whenever additional applicable requirements become applicable to a major source with a remaining permit term of three or more years, unless the effective date of the requirements is later than the date on which the permit expires, or unless a general permit is obtained to address the new requirements; whenever additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program; whenever the Division determines the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or whenever the Division determines that the permit must be revised or revoked to assure compliance with an applicable requirement.

- c. The Division shall provide 30 days' advance notice to the permittee of its intent to reopen the permit, except that a shorter notice may be provided in the case of an emergency.
- d. The permit shield shall extend to those parts of the permit that have been changed pursuant to the reopening and reissuance procedure.

24. Section 502(b)(10) Changes

Regulation No. 3, 5 CCR 1001-5, Part C, § XII.A.

The permittee shall provide a minimum 7-day advance notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit. The permittee shall attach a copy of each such notice given to its Operating Permit.

25. Severability Clause

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.10.

In the event of a challenge to any portion of the permit, all emissions limits, specific and general conditions, monitoring, record keeping and reporting requirements of the permit, except those being challenged, remain valid and enforceable.

26. Significant Permit Modifications

Regulation No. 3, 5 CCR 1001-5, Part C, § III.B.2.

The permittee shall not make a significant modification required to be reviewed under Regulation No. 3, Part B ("Construction Permit" requirements) without first receiving a construction permit. The permittee shall submit a complete Operating Permit application or application for an Operating Permit revision for any new or modified source within twelve months of commencing operation, to the address listed in Item 1 in Appendix D of this permit. If the permittee chooses to use the "Combined Construction/Operating Permit" application procedures of Regulation No. 3, Part C, then the Operating Permit must be received prior to commencing construction of the new or modified source.

27. Special Provisions Concerning the Acid Rain Program

Regulation No. 3, 5 CCR 1001-5, Part C, §§ V.C.1.b. & 8

- a. Where an applicable requirement of the federal act is more stringent than an applicable requirement of regulations promulgated under Title IV of the federal act, 40 Code of Federal Regulations (CFR) Part 72, both provisions shall be incorporated into the permit and shall be federally enforceable.
- b. Emissions exceeding any allowances that the source lawfully holds under Title IV of the federal act or the regulations promulgated thereunder, 40 CFR Part 72, are expressly prohibited.

28. Transfer or Assignment of Ownership

Regulation No. 3, 5 CCR 1001-5, Part C, § II.C.

No transfer or assignment of ownership of the Operating Permit source will be effective unless the prospective owner or operator applies to the Air Pollution Control Division on Division-supplied Administrative Permit Amendment forms, for reissuance of the existing Operating Permit. No administrative permit shall be complete until a written agreement containing a specific date for transfer of permit, responsibility, coverage, and liability between the permittee and the prospective owner or operator has been submitted to the Division.

29. Volatile Organic Compounds

Regulation No. 7, 5 CCR 1001-9, §§ III & V.

The requirements in paragraphs a, b and e apply to sources located in an ozone non-attainment area or the Denver 1-hour ozone attainment/maintenance area. The requirements in paragraphs c and d apply statewide.

- a. All storage tank gauging devices, anti-rotation devices, accesses, seals, hatches, roof drainage systems, support structures, and pressure relief valves shall be maintained and operated to prevent detectable vapor loss except when opened, actuated, or used for necessary and proper activities (e.g. maintenance). Such opening, actuation, or use shall be limited so as to minimize vapor loss.

Detectable vapor loss shall be determined visually, by touch, by presence of odor, or using a portable hydrocarbon analyzer. When an analyzer is used, detectable vapor loss means a VOC concentration exceeding 10,000 ppm. Testing shall be conducted as in Regulation No. 7, Section VIII.C.3.
- b. Except when otherwise provided by Regulation No. 7, all volatile organic compounds, excluding petroleum liquids, transferred to any tank, container, or vehicle compartment with a capacity exceeding 212 liters (56 gallons), shall be transferred using submerged or bottom filling equipment. For top loading, the fill tube shall reach within six inches of the bottom of the tank compartment. For bottom-fill operations, the inlet shall be flush with the tank bottom.
- c. The permittee shall not dispose of volatile organic compounds by evaporation or spillage unless Reasonably Available Control Technology (RACT) is utilized.
- d. No owner or operator of a bulk gasoline terminal, bulk gasoline plant, or gasoline dispensing facility as defined in Colorado Regulation No. 7, Section VI, shall permit gasoline to be intentionally spilled, discarded in sewers, stored in open containers, or disposed of in any other manner that would result in evaporation.
- e. Beer production and associated beer container storage and transfer operations involving volatile organic compounds with a true vapor pressure of less than 1.5 PSIA actual conditions are exempt from the provisions of paragraph b, above.

30. Wood Stoves and Wood burning Appliances

Regulation No. 4, 5 CCR 1001-6

The permittee shall comply with the provisions of Regulation No. 4 concerning the advertisement, sale, installation, and use of wood stoves and wood burning appliances.

OPERATING PERMIT APPENDICES

- A - INSPECTION INFORMATION
- B - MONITORING AND PERMIT DEVIATION REPORT
- C - COMPLIANCE CERTIFICATION REPORT
- D - NOTIFICATION ADDRESSES
- E - PERMIT ACRONYMS
- F - PERMIT MODIFICATIONS
- G – VOUNTARY EMISSIONS REDUCTION AGREEMENT –
METHOD FOR DETERMINING PERCENT REDUCTION
- H - COMPLIANCE ASSURANCE MONITORING PLAN
- I - RETIRED UNIT EXEMPTION FORMS

***DISCLAIMER:**

None of the information found in these Appendices, except as otherwise provided in the permit, shall be considered to be State or Federally enforceable, except as otherwise provided in the permit, and is presented to assist the source, permitting authority, inspectors, and citizens.

APPENDIX A - Inspection Information

Directions to Plant:

The facility is located at 6198 Franklin Street. The plant access gate is on the east side of Franklin Street at 62nd Avenue.

Safety Equipment Required:

Eye Protection
Hard Hat
Safety Shoes
Hearing Protection

Facility Plot Plan:

Figure 1 (following page) shows the plot plan as submitted on February 15, 1996 with the source's Title V Operating Permit Application.

List of Insignificant Activities:

The following list of insignificant activities was provided by the source to assist in the understanding of the facility layout. Since there is no requirement to update such a list, activities may have changed since the last filing.

Units/activities with emissions less than APEN de minimis (Reg 3 Part C.II.E.3.a & b)

VOC leaks from natural gas valves and flanges (VOC < 1 tpy)
Unit 2 ash blower system (PM and PM₁₀ emissions < 1 tpy)
Lime handling system for wastewater treatment system (PM and PM₁₀ emissions < 1 tpy)
Fluorescent bulb crusher

Air conditioning or ventilation systems (Reg 3 Part C.II.E.3.c)

In-house experimental and/or analytical laboratories (Reg 3 Part C.II.E.3.i)

Plant laboratory

Fuel burning equipment less than 5 MMBtu/hr (Reg 3 Part C.II.E.3.k)

propane portable heaters

Chemical storage tanks less than 500 gal (Reg 3 Part C.II.E.3.n)

Brazing, soldering and welding operations - non-lead based (Reg 3 Part C.II.E.3.r)

Welding machine

Battery recharging areas (Reg 3 Part C.II.E.3.t)

Landscaping/site housekeeping devices less than 10 HP (Reg 3 Part C.II.E.3.bb)

Mowers, snowblowers, etc...

Fugitive emissions from landscaping (Reg 3 Part C.II.E.3.cc)

Emergency events (Reg 3 Part C.II.E.3.ff)

Operations involving acetylene and other flame cutting torches (Reg 3 Part C.II.E.3.kk)

Acetylene welding

Chemical storage areas less than 5,000 gal capacity (Reg 3 Part C.II.E.3.mm)

Oil drum storage area

Emissions of air pollutants not criteria or non-criteria reportable (Reg 3 Part C.II.E.3.oo)

Turbine hydrogen vents

Wastewater operations

Boiler steam vents

Janitorial activities and products (Reg 3 Part C.II.E.3.pp)

Office emissions (Reg 3 Part C.II.E.3.tt)

Restrooms, copiers, etc...

Storage tanks < 400,000 gas containing specific contents (Reg 3 Part C.II.E.3.fff)

Diesel fuel tank for Emergency Generators A and B (20,000 gal underground)

Diesel fuel tank for refueling of heavy equipment (10,000 gal above ground)

Diesel fuel tank for general plant operations (500 gal above ground)

Turbine lube oil batch tank

Stationary internal combustion engines – limited hours or size (Reg 3, Part C.II.E.3.xxx)

412 hp, diesel-fired engine powering an emergency fire pump (runs < 340 hrs/yr)
140 hp, diesel-fired engine powering a port-a-batch lime slurry pump (runs < 1,450 hrs/yr)
80 hp, diesel-fired portable engine powering a water pump (runs < 1,450 hrs/yr)

Sandblast equipment when blast media is recycled and blasted material collected (Reg 3 Part C.II.E.3.www)

Not sources of emissions

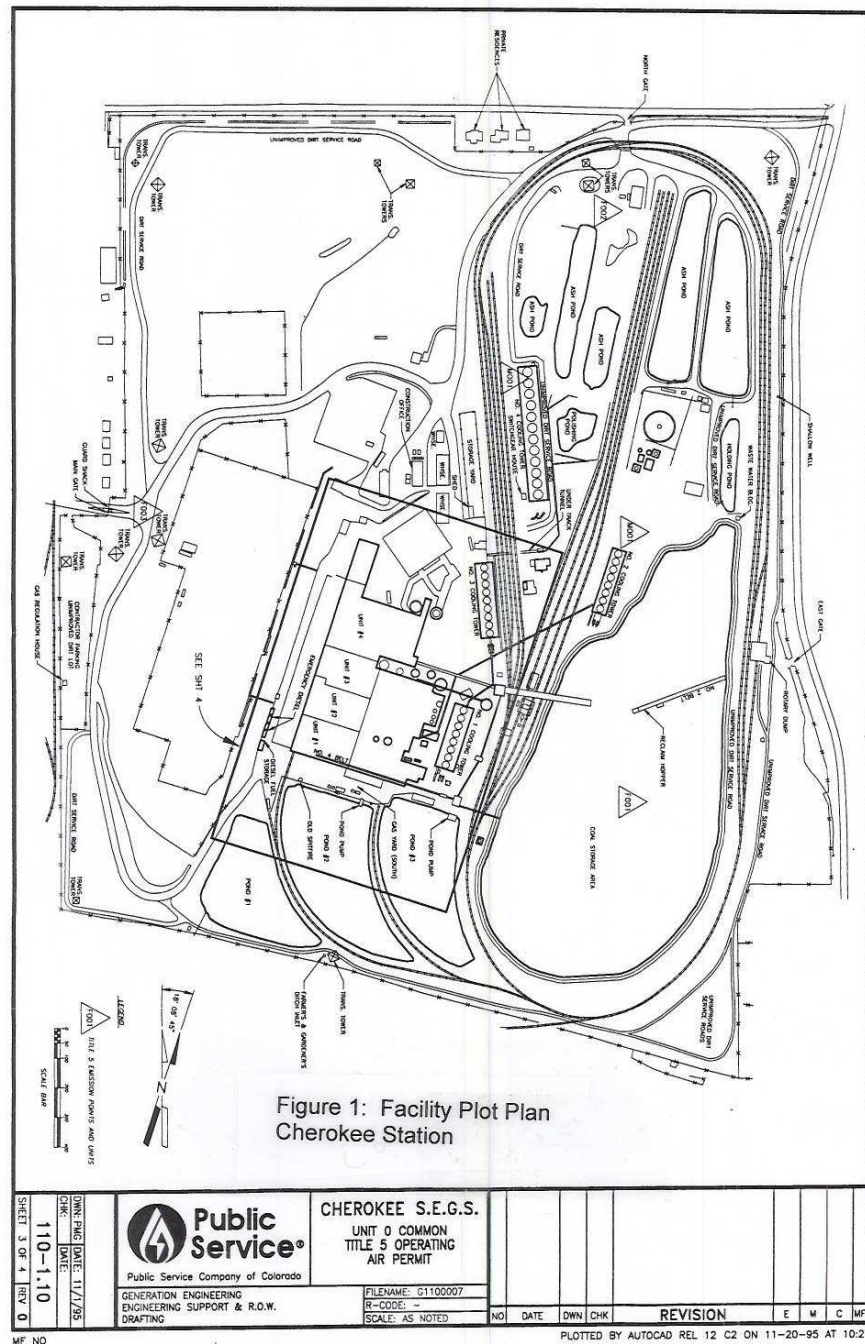
Bottom ash handling (bottom ash is sluiced with water to on-site ash ponds, since handled as a slurry there are not emissions)

Unit No. 1 turbine lube oil system (closed system)

Unit No. 2 turbine lube oil system (closed system)

Unit No. 3 turbine lube oil system (closed system)

Unit No. 4 turbine lube oil system (closed system)



Operating Permit Number: 96OPAD130

First Issued: 2/1/02
Renewed: 4/1/10
Last Revised: 2/10/14

APPENDIX B

Reporting Requirements and Definitions

no codes ver 2/20/07

Please note that, pursuant to 113(c)(2) of the federal Clean Air Act, any person who knowingly:

- (A) makes any false material statement, representation, or certification in, or omits material information from, or knowingly alters, conceals, or fails to file or maintain any notice, application, record, report, plan, or other document required pursuant to the Act to be either filed or maintained (whether with respect to the requirements imposed by the Administrator or by a State);
- (B) fails to notify or report as required under the Act; or
- (C) falsifies, tampers with, renders inaccurate, or fails to install any monitoring device or method required to be maintained or followed under the Act shall, upon conviction, be punished by a fine pursuant to title 18 of the United States Code, or by imprisonment for not more than 2 years, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

The permittee must comply with all conditions of this operating permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

The Part 70 Operating Permit program requires three types of reports to be filed for all permits. All required reports must be certified by a responsible official.

Report #1: Monitoring Deviation Report (due at least every six months)

For purposes of this operating permit, the Division is requiring that the monitoring reports are due every six months unless otherwise noted in the permit. All instances of deviations from permit monitoring requirements must be clearly identified in such reports.

For purposes of this operating permit, monitoring means any condition determined by observation, by data from any monitoring protocol, or by any other monitoring which is required by the permit as well as the recordkeeping associated with that monitoring. This would include, for example, fuel use or process rate monitoring, fuel analyses, and operational or control device parameter monitoring.

Report #2: Permit Deviation Report (must be reported “promptly”)

In addition to the monitoring requirements set forth in the permits as discussed above, each and every requirement of the permit is subject to deviation reporting. The reports must address deviations from permit

requirements, including those attributable to upset conditions and malfunctions as defined in this Appendix, the probable cause of such deviations, and any corrective actions or preventive measures taken. All deviations from any term or condition of the permit are required to be summarized or referenced in the annual compliance certification.

For purposes of this operating permit, “malfunction” shall refer to both emergency conditions and malfunctions. Additional discussion on these conditions is provided later in this Appendix.

For purposes of this operating permit, the Division is requiring that the permit deviation reports are due as set forth in General Condition 21. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. For example, quarterly Excess Emission Reports required by an NSPS or Regulation No. 1, Section IV.

In addition to the monitoring deviations discussed above, included in the meaning of deviation for the purposes of this operating permit are any of the following:

- (1) A situation where emissions exceed an emission limitation or standard contained in the permit;
- (2) A situation where process or control device parameter values demonstrate that an emission limitation or standard contained in the permit has not been met;
- (3) A situation in which observations or data collected demonstrates noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit; or,
- (4) A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. (only if the emission point is subject to CAM)

For reporting purposes, the Division has combined the Monitoring Deviation Report with the Permit Deviation Report.

Report #3: Compliance Certification (annually, as defined in the permit)

Submission of compliance certifications with terms and conditions in the permit, including emission limitations, standards, or work practices, is required not less than annually.

Compliance Certifications are intended to state the compliance status of each requirement of the permit over the certification period. They must be based, at a minimum, on the testing and monitoring methods specified in the permit that were conducted during the relevant time period. In addition, if the owner or operator knows of other material information (i.e. information beyond required monitoring that has been specifically assessed in relation to how the information potentially affects compliance status), that information must be identified and addressed in the compliance certification. The compliance certification must include the following:

- The identification of each term or condition of the permit that is the basis of the certification;

- Whether or not the method(s) used by the owner or operator for determining the compliance status with each permit term and condition during the certification period was the method(s) specified in the permit. Such methods and other means shall include, at a minimum, the methods and means required in the permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Clean Air Act, which prohibits knowingly making a false certification or omitting material information;
- The status of compliance with the terms and conditions of the permit, and whether compliance was continuous or intermittent. The certification shall identify each deviation and take it into account in the compliance certification. Note that not all deviations are considered violations.¹
- Such other facts as the Division may require, consistent with the applicable requirements to which the source is subject, to determine the compliance status of the source.

The Certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. (only for emission points subject to CAM)

Note the requirement that the certification shall identify each deviation and take it into account in the compliance certification. Previously submitted deviation reports, including the deviation report submitted at the time of the annual certification, may be referenced in the compliance certification.

Startup, Shutdown, Malfunctions and Emergencies

Understanding the application of Startup, Shutdown, Malfunctions and Emergency Provisions, is very important in both the deviation reports and the annual compliance certifications.

Startup, Shutdown, and Malfunctions

Please note that exceedances of some New Source Performance Standards (NSPS) and Maximum Achievable Control Technology (MACT) standards that occur during Startup, Shutdown or Malfunctions may not be considered to be non-compliance since emission limits or standards often do not apply unless specifically stated in the NSPS. Such exceedances must, however, be reported as excess emissions per the NSPS/MACT rules and would still be noted in the deviation report. In regard to compliance certifications, the permittee should be confident of the information related to those deviations when making compliance determinations since they are subject to Division review. The concepts of Startup, Shutdown and Malfunctions also exist for Best Available Control Technology (BACT) sources, but are not applied in the same fashion as for NSPS and MACT sources.

Emergency Provisions

¹ For example, given the various emissions limitations and monitoring requirements to which a source may be subject, a deviation from one requirement may not be a deviation under another requirement which recognizes an exception and/or special circumstances relating to that same event.

Under the Emergency provisions of Part 70, certain operational conditions may act as an affirmative defense against enforcement action if they are properly reported.

DEFINITIONS

Malfunction (NSPS) means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Malfunction (SIP) means any sudden and unavoidable failure of air pollution control equipment or process equipment or unintended failure of a process to operate in a normal or usual manner. Failures that are primarily caused by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

Emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

Monitoring and Permit Deviation Report - Part I

1. Following is the **required** format for the Monitoring and Permit Deviation report to be submitted to the Division as set forth in General Condition 21. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.
2. Part II of this Appendix B shows the format and information the Division will require for describing periods of monitoring and permit deviations, or malfunction or emergency conditions as indicated in the Table below. One Part II Form must be completed for each Deviation. Previously submitted reports (e.g. EER's or malfunctions) may be referenced and the form need not be filled out in its entirety.

FACILITY NAME: Public Service Company of Colorado– Cherokee Station

OPERATING PERMIT NO: 96OPAD130

REPORTING PERIOD: _____ (see first page of the permit for specific reporting period and dates)

Operating Permit Unit ID	Unit Description	Deviations noted During Period? ¹		Malfunction/ Emergency Condition Reported During Period?	
		YES	NO	YES	NO
B003	Boiler No. 3 (Unit 3), Babcock and Wilcox, Model No. RB344, Serial No. NY-771802, Front-Fired Boiler, Rated at 1,877 MMBtu/hr. Coal, Natural Gas or Combination Fired.				
B004	Boiler No. 4 (Unit 4), Combustion Engineering, Model No. 12465, Serial No. C400016, Tangentially Fired Boiler, Rated at 3,520 MMBtu/hr. Coal, Natural Gas or Combination Fired.				
E001	General Motors Internal Combustion Reciprocating Engine, Model No. 20-645E4, Serial No. 67-H1-1127, Diesel Fuel-Fired Emergency Generator.				
E002	General Motors Internal Combustion Reciprocating Engine, Model No. 20-645E4, Serial No. 67-H1-1080, Diesel Fuel-Fired Emergency Generator.				
F001	Fugitive Particulate Emissions from Coal Handling and Storage (Railcar Unloading, Storage Pile and Coal Dozing)				
F002	Fugitive Particulate Emissions from Ash Handling and Disposal				
F003	Fugitive Particulate Emissions from Paved and Unpaved Roads				
P001 thru P003	Three (3) Grandfathered Ash Silos				
P006 & P007	Two (2) Permitted Ash Silos				
P008	Unit 3 Ash Blower System				
P004	Coal Handling System (Conveyors and Two (2) Crushers)				
P005	Three (3) Dry Sodium Reagent Silos				

Operating Permit Unit ID	Unit Description	Deviations noted During Period? ¹		Malfunction/ Emergency Condition Reported During Period?	
		YES	NO	YES	NO
M001	Four (4) Cooling Water Towers and Two (2) Service Water Towers				
T001	Gasoline Aboveground Storage Tank (1,000 gal)				
P009	Two (2) Lime Storage Silos				
P010	Two (2) Ball Mill Slakers				
P011	Two (2) Recycle Mixers				
E003	Cummins, Model No. CFG9E-F20, Diesel Fuel-Fired Internal Combustion Engine, Rated at 282 hp and 14.6 gal/hr. Serial No. 73335121. This Engine Drives an Emergency Fire Pump.				
M002	Safety Kleen Cold Cleaner Solvent Vat				
	General Conditions				
	Insignificant Activities				

¹ See previous discussion regarding what is considered to be a deviation. Determination of whether or not a deviation has occurred shall be based on a reasonable inquiry using readily available information.

Monitoring and Permit Deviation Report - Part II

FACILITY NAME: Public Service Company of Colorado – Cherokee Station
OPERATING PERMIT NO: 96OPAD130
REPORTING PERIOD:

Is the deviation being claimed as an: Emergency _____ Malfunction _____ N/A _____

(For NSPS/MACT) Did the deviation occur during: Startup _____ Shutdown _____ Malfunction _____
Normal Operation _____

OPERATING PERMIT UNIT IDENTIFICATION:

Operating Permit Condition Number Citation

Explanation of Period of Deviation

Duration (start/stop date & time)

Action Taken to Correct the Problem

Measures Taken to Prevent a Reoccurrence of the Problem

Dates of Malfunctions/Emergencies Reported (if applicable)

Deviation Code (for Division Use Only)

SEE EXAMPLE ON THE NEXT PAGE

EXAMPLE

FACILITY NAME: Acme Corp.
OPERATING PERMIT NO: 96OPZZXXX
REPORTING PERIOD: 1/1/06 - 6/30/06

Is the deviation being claimed as an: Emergency _____ Malfunction XX N/A _____

(For NSPS/MACT) Did the deviation occur during: Startup _____ Shutdown _____ Malfunction _____
Normal Operation _____

OPERATING PERMIT UNIT IDENTIFICATION:

Asphalt Plant with a Scrubber for Particulate Control - Unit XXX

Operating Permit Condition Number Citation

Section II, Condition 3.1 - Opacity Limitation

Explanation of Period of Deviation

Slurry Line Feed Plugged

Duration

START- 1730 4/10/06
END- 1800 4/10/06

Action Taken to Correct the Problem

Line Blown Out

Measures Taken to Prevent Reoccurrence of the Problem

Replaced Line Filter

Dates of Malfunction/Emergencies Reported (if applicable)

5/30/06 to A. Einstein, APCD

Deviation Code (for Division Use Only)

Monitoring and Permit Deviation Report - Part III

REPORT CERTIFICATION

SOURCE NAME: Public Service Company of Colorado– Cherokee Station

FACILITY IDENTIFICATION NUMBER: 0010001

PERMIT NUMBER: 96OPAD130

REPORTING PERIOD: _____ (see first page of the permit for specific reporting period and dates)

All information for the Title V Semi-Annual Deviation Reports must be certified by a responsible official as defined in Colorado Regulation No. 3, Part A, Section I.B.38. This signed certification document must be packaged with the documents being submitted.

STATEMENT OF COMPLETENESS

I have reviewed the information being submitted in its entirety and, based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this submittal are true, accurate and complete.

Please note that the Colorado Statutes state that any person who knowingly, as defined in Sub-Section 18-1-501(6), C.R.S., makes any false material statement, representation, or certification in this document is guilty of a misdemeanor and may be punished in accordance with the provisions of Sub-Section 25-7 122.1, C.R.S.

Printed or Typed Name

Title

Signature

Date Signed

Note: Deviation reports shall be submitted to the Division at the address given in Appendix D of this permit. No copies need be sent to the U.S. EPA.

Operating Permit Number: 96OPAD130

First Issued: 2/1/02
Renewed: 4/1/10
Last Revised: 2/10/14

APPENDIX C

Required Format for Annual Compliance Certification Report

Following is the format for the Compliance Certification report to be submitted to the Division and the U.S. EPA annually based on the effective date of the permit. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.

FACILITY NAME: Public Service Company of Colorado– Cherokee Station

OPERATING PERMIT NO: 96OPAD130

REPORTING PERIOD:

I. Facility Status

___ During the entire reporting period, this source was in compliance with **ALL** terms and conditions contained in the Permit, each term and condition of which is identified and included by this reference. The method(s) used to determine compliance is/are the method(s) specified in the Permit.

___ With the possible exception of the deviations identified in the table below, this source was in compliance with all terms and conditions contained in the Permit, each term and condition of which is identified and included by this reference, during the entire reporting period. The method used to determine compliance for each term and condition is the method specified in the Permit, unless otherwise indicated and described in the deviation report(s). Note that not all deviations are considered violations.

Operating Permit Unit ID	Unit Description	Deviations Reported ¹		Monitoring Method per Permit? ²		Was compliance continuous or intermittent? ³	
		Previous	Current	YES	NO	continuous	intermittent
B003	Boiler No. 3 (Unit 3), Babcock and Wilcox, Model No. RB344, Serial No. NY-771802, Front-Fired Boiler, Rated at 1,877 MMBtu/hr. Coal, Natural Gas or Combination Fired.						
B004	Boiler No. 4 (Unit 4), Combustion Engineering, Model No. 12465, Serial No. C400016, Tangentially Fired Boiler, Rated at 3,520 MMBtu/hr. Coal, Natural Gas or Combination Fired.						

Air Pollution Control Division
Colorado Operating Permit
Compliance Certification Report

Appendix C
Page 2

Operating Permit Unit ID	Unit Description	Deviations Reported ¹		Monitoring Method per Permit? ²		Was compliance continuous or intermittent? ³	
		Previous	Current	YES	NO	continuous	intermittent
E001	General Motors Internal Combustion Reciprocating Engine, Model No. 20-645E4, Serial No. 67-H1-1127, Rated at 3,600 hp, Diesel Fuel-Fired Emergency Generator.						
E002	General Motors Internal Combustion Reciprocating Engine, Model No. 20-645E4, Serial No. 67-H1-1080, Rated at 3,600 hp, Diesel Fuel-Fired Emergency Generator.						
F001	Fugitive Particulate Emissions from Coal Handling and Storage (Railcar Unloading, Storage Pile and Coal Dozing)						
F002	Fugitive Particulate Emissions from Ash Handling and Disposal						
F003	Fugitive Particulate Emissions from Paved and Unpaved Roads						
P001 thru P003	Three (3) Grandfathered Ash Silos						
P006 & P007	Two (2) Permitted Ash Silos						
P008	Unit 3 Ash Blower System						
P004	Coal Handling System (Conveyors and Two (2) Crushers)						
P005	Three (3) Dry Sodium Reagent Silos						
M001	Four (4) Cooling Water Towers and Two (2) Service Water Towers						
T001	Gasoline Aboveground Storage Tank (1,000 gal)						
P009	Two (2) Lime Storage Silos						
P010	Two (2) Ball Mill Slakers						
P011	Two (2) Recycle Mixers						
E003	Cummins, Model No. CFG9E-F20, Diesel Fuel-Fired Internal Combustion Engine, Rated at 282 hp and 14.6 gal/hr. Serial No. 73335121. This Engine Drives an Emergency Fire Pump.						
M002	Safety Kleen Cold Cleaner Solvent Vat						
	General Conditions						
	Insignificant Activities ⁴						

¹ If deviations were noted in a previous deviation report, put an "X" under "previous". If deviations were noted in the current deviation report (i.e. for the last six months of the annual reporting period), put an "X" under "current". Mark both columns if both apply.

Operating Permit Number: 96OPAD130

First Issued: 2/1/02
Renewed: 4/1/10
Last Revised: 2/10/14

² Note whether the method(s) used to determine the compliance status with each term and condition was the method(s) specified in the permit. If it was not, mark “no” and attach additional information/explanation.

³ Note whether the compliance status with of each term and condition provided was continuous or intermittent. “Intermittent Compliance” can mean either that noncompliance has occurred or that the owner or operator has data sufficient to certify compliance only on an intermittent basis. Certification of intermittent compliance therefore does not necessarily mean that any noncompliance has occurred.

NOTE:

The Periodic Monitoring requirements of the Operating Permit program rule are intended to provide assurance that even in the absence of a continuous system of monitoring the Title V source can demonstrate whether it has operated in continuous compliance for the duration of the reporting period. Therefore, if a source 1) conducts all of the monitoring and recordkeeping required in its permit, even if such activities are done periodically and not continuously, and if 2) such monitoring and recordkeeping does not indicate non-compliance, and if 3) the Responsible Official is not aware of any credible evidence that indicates non-compliance, then the Responsible Official can certify that the emission point(s) in question were in continuous compliance during the applicable time period.

⁴ Compliance status for these sources shall be based on a reasonable inquiry using readily available information.

II. Status for Accidental Release Prevention Program:

- A. This facility _____ is subject _____ is not subject to the provisions of the Accidental Release Prevention Program (Section 112(r) of the Federal Clean Air Act)
- B. If subject: The facility _____ is _____ is not in compliance with all the requirements of section 112(r).
1. A Risk Management Plan _____ will be _____ has been submitted to the appropriate authority and/or the designated central location by the required date.

III. Certification

All information for the Title V Semi-Annual Deviation Reports must be certified by a responsible official as defined in Colorado Regulation No. 3, Part A, Section I.B.38. This signed certification document must be packaged with the documents being submitted.

I have reviewed this certification in its entirety and, based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this certification are true, accurate and complete.

Please note that the Colorado Statutes state that any person who knowingly, as defined in § 18-1-501(6), C.R.S., makes any false material statement, representation, or certification in this document is guilty of a misdemeanor and may be punished in accordance with the provisions of § 25-7 122.1, C.R.S.

Printed or Typed Name

Title

Signature

Date Signed

NOTE: All compliance certifications shall be submitted to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit.

APPENDIX D

Notification Addresses

1. Air Pollution Control Division

Colorado Department of Public Health and Environment
Air Pollution Control Division
Operating Permits Unit
APCD-SS-B1
4300 Cherry Creek Drive S.
Denver, CO 80246-1530

ATTN: Matt Burgett

2. United States Environmental Protection Agency

Compliance Notifications:

Office of Enforcement, Compliance and Environmental Justice
Mail Code 8ENF-T
U.S. Environmental Protection Agency, Region VIII
1595 Wynkoop Street
Denver, CO 80202-1129

Permit Modifications, Off Permit Changes:

Office of Partnerships and Regulatory Assistance
Air and Radiation Programs, 8P-AR
U.S. Environmental Protection Agency, Region VIII
1595 Wynkoop Street
Denver, CO 80202-1129

APPENDIX E

Permit Acronyms

Listed Alphabetically:

AIRS -	Aerometric Information Retrieval System
AP-42 -	EPA Document Compiling Air Pollutant Emission Factors
APEN -	Air Pollution Emission Notice (State of Colorado)
APCD -	Air Pollution Control Division (State of Colorado)
ASTM -	American Society for Testing and Materials
BACT -	Best Available Control Technology
BTU -	British Thermal Unit
CAA -	Clean Air Act (CAAA = Clean Air Act Amendments)
CCR -	Colorado Code of Regulations
CEM -	Continuous Emissions Monitor
CF -	Cubic Feet (SCF = Standard Cubic Feet)
CFR -	Code of Federal Regulations
CO -	Carbon Monoxide
COM -	Continuous Opacity Monitor
CRS -	Colorado Revised Statute
EF -	Emission Factor
EPA -	Environmental Protection Agency
FI -	Fuel Input Rate in MMBtu/hr
FR -	Federal Register
G -	Grams
Gal -	Gallon
GPM -	Gallons per Minute
HAPs -	Hazardous Air Pollutants
HP -	Horsepower
HP-HR -	Horsepower Hour (G/HP-HR = Grams per Horsepower Hour)
LAER -	Lowest Achievable Emission Rate
LBS -	Pounds
M -	Thousand
MM -	Million
MMscf -	Million Standard Cubic Feet
MMscfd -	Million Standard Cubic Feet per Day
N/A or NA -	Not Applicable
NO _x -	Nitrogen Oxides
NESHAP -	National Emission Standards for Hazardous Air Pollutants
NSPS -	New Source Performance Standards
P -	Process Weight Rate in Tons/Hr
PE -	Particulate Emissions
PM -	Particulate Matter

PM ₁₀ -	Particulate Matter Under 10 Microns
PSD -	Prevention of Significant Deterioration
PTE -	Potential To Emit
RACT -	Reasonably Available Control Technology
SCC -	Source Classification Code
SCF -	Standard Cubic Feet
SIC -	Standard Industrial Classification
SO ₂ -	Sulfur Dioxide
TPY -	Tons Per Year
TSP -	Total Suspended Particulate
VOC -	Volatile Organic Compounds

APPENDIX F

Permit Modifications

DATE OF REVISION	TYPE OF MODIFICATION	SECTION NUMBER, CONDITION NUMBER	DESCRIPTION OF REVISION
December 27, 2010	Minor Modification	Section I	Revised Condition 1.1. to indicate that there are only three (3) sodium silos. Removed Section II, Condition 1.11 from the list of state-only requirements in Section 1.4. Removed the 3 rd column in the table in Condition 6.1 and renamed the 1 st column "Emission Unit No./Facility ID". In addition, the table in Condition 6.1 was revised to indicate there are only three (3) sodium silos and to indicate the startup date of the three silos.
		Section II.1	Added language to Condition 1.1.2 to note that the baseline opacities from the initial tests have been set and to require the source to submit the proposed baseline opacities from any subsequent tests. Included the PM emissions factors from the latest stack tests in Condition 1.2. Revised Condition 1.2 to indicate that the emission factor from the "most recent" performance test shall be used to calculate PM emissions. Condition 1.11 was revised to remove the state-only lead standard of 1.5 µg/m ³ . Added the baseline opacity levels in Condition 1.15.1.2 (CAM requirements).
		Section II.6	Revised the summary table header for P005 to indicate there are only three (3) sodium silos.
		Section II.12	Removed Condition 12.1 (Reg 8 lead standard).
		Section II.16	Corrected the permit condition numbers in the summary table for P010 (ball mill slakers).
		Section V	Added a version date. The title for Condition 6 was changed from "Emission Standards for Asbestos" to "Emission Controls for Asbestos" and in the text the phrase "emission standards for asbestos" was changed to "asbestos control". General Condition 29 was revised by reformatting and adding the provisions in Reg 7, Section III.C as paragraph e.
		Appendices B & C	Revised the tables to indicate there are only three (3) sodium silos.
		Appendix H	Added the 24-hour opacity indicator levels. In addition, removed the sentence indicating that startups, shutdowns and malfunctions can be excluded from the 24-hr average opacity from Section II (Table, Section III.f – averaging time for indicator 1 (visible emissions)) of the CAM plan. Section III.c was also revised to include further justification of the 15% opacity indicator, to further clarify the justification of the 24-hr opacity indicator, to remove language indicating the 24-hr opacity indicator was presumptively acceptable and to discuss why past performance test data was not used to set the 24-hour opacity indicator. In addition, the table in Section III.a was revised, in part to include the performance test results from the 2010 performance tests which were used to set the 24-hr opacity indicator.
April 18, 2012	Minor Modification	Page Following Cover Page	Changed the permit contact and the company address

DATE OF REVISION	TYPE OF MODIFICATION	SECTION NUMBER, CONDITION NUMBER	DESCRIPTION OF REVISION
April 18, 2012	Minor Modification	Section I	The language in Condition 1.1 was revised to include the emergency fire pump engine. The following changes were made to the table in Condition 6.1: added the new emergency fire pump engine and included the size (hp) of the emergency generators.
		Section II.4	Revised the opacity monitoring language in Condition 4.4.
		Section II.10	The phrase “may elect to” in the first paragraph of Condition 10.4.3 was replaced with “shall”.
		Section II.17	Removed the Regional Haze Requirements and added requirements for the new emergency fire pump engine.
		Section III	Changed the designated representative and alternate designated representative.
		Section IV	Included the Reg 1 SO ₂ limit in Section VI.B.4.b.(i) to the table for streamlined conditions (applies to emergency fire pump engine) in Section IV.3.
		Appendices	Included a 500 gal diesel tank in the insignificant activity list in Appendix A. Added the emergency fire pump engine to and included the size (hp) of the emergency generators in the tables in Appendices B and C. Changed the Division contact for reports in Appendix D.
December 26, 2012	Minor Modification	Section I	The description in Condition 1.1 was revised to reflect that Units 1 and 2 are retired and to include the Safety Kleen cold cleaner solvent vat. . Construction permit 86AD352-1 was removed from the list in Condition 1.3. Condition 1.4 was revised to add Section II, Condition 1.16 as a state-only requirement and to remove Section V, Condition 3.d as a state-only requirement. References to Units 1 and 2 were removed from Conditions 2.1.1 (AOS) and 5.1 (CAM). The table in Condition 6.1 was revised to remove Units 1 and 2, add the Safety Kleen cold cleaner solvent vat and to update the startup date for the emergency fire pump engine.
		Section II.1	Removed references to Units 1 and 2 and limitations and/or emission factors for Units 1 and 2. Citations that include construction permit 86AD352-1 were removed. The limit in Condition 1.5 was revised to require that the 20% reduction of SO ₂ apply to Unit 4 alone. Added the requirements in Regulation No. 6, Part B, Section VIII for low emitters to Condition 1.16 (these are state-only requirements). Added the Regional Haze Requirements (Regulation No. 3, Part F) in Condition 1.17.
		Section II.2	Removed references to Units 1 and 2 and limitations and/or emission factors for Units 1 and 2. Citations that include construction permit 86AD352-1 were removed. Added the Regional Haze Requirements (Regulation No. 3, Part F) in Conditions 2.12 and 2.13.
		Section II.3	Removed references to Units 1 and 2 from the section title.
		Section II.15	Removed the note indicating that these requirements are state-only enforceable until EPA approves the BART portion of Colorado’s Regional Haze SIP. Removed Units 1 and 2 from Condition 15.1.1.1.

DATE OF REVISION	TYPE OF MODIFICATION	SECTION NUMBER, CONDITION NUMBER	DESCRIPTION OF REVISION
December 26, 2012	Minor Modification	Section II.10	Removed references to Units 1 and 2 and limitations and/or emission factors for Units 1 and 2. Citations that include construction permit 86AD352-1 were removed.
		Section II.17	Added notes to Condition 17.1 indicating that the source is subject to the most recent version of these requirements (40 CFR Part 60 Subpart IIII) and that proposed revisions were made to the requirements. Added a statement under the header for the requirements in 40 CFR Part 60 Subpart IIII § 60.4209 and the requirements in § 60.4211(g) to Condition 17.1. Corrected the citations in Conditions 17.1.9 and 17.1.10. Removed Conditions 17.7 (commence construction) and 17.8 (startup notice) since these requirements have been completed.
		Section II.18	Requirements for the Safety Kleen cold cleaner solvent vat were included in this section.
		Section III	Removed Units 1 and 2 from the table in Section III.2 and removed the NO _x averaging plan provisions. Removed the reference to Units 1 and 2 in Section III.3.
		Section IV	Removed references to B001 and B002, Units 1 and 2 and construction permit 86AD352-1.
		Section V	Revised the version date. The paragraph in Condition 3.d indicating that the requirements are state-only was removed, since EPA approved these provisions in into Colorado's SIP effective October 6, 2008.
		Appendices	A fluorescent bulb crusher was added to the insignificant activity list in Appendix A. The Safety Kleen cold cleaner solvent vat was added to the tables in Appendices B and C. Included the retired unit exemption forms for Units 1 and 2 in a "new" Appendix I.
February 10, 2014	Minor Modification	Page following cover page	Changed the Responsible Official.
		Section II.1	Added a "new" Condition 1.18 to include the compliance dates for 40 CFR Part 63 Subpart UUUUU. An extension to the Subpart UUUUU compliance date was granted for Unit 3 and the conditions under which this approval was granted was included in Condition 1.18.
		Section II.17	The third paragraph in Condition 17.1.3 (sample engine day tank) was removed since this requirements has been completed) and the language in paragraph 4 (fuel sampling after initial day tank sampling) was revised.
		Section III	Changed the Designated Representative.

APPENDIX G

Voluntary Emissions Reduction Agreement – Method For Determining Percent Reduction

Included below is Exhibit A (first amendment) of the Voluntary Emissions Reduction Agreement. The provisions in this Exhibit A shall be used to determine the percent reduction for the Metro Units, as specified in condition 15.2.1.2

It should be noted that the monthly “Unit Coal Train Sample Analysis” for the sulfur and Btu content of the coal is based the weighted average of each coal shipment received at the facility in a month. Note that since the “Unit Coal Train Sample Analysis” is based on all coal shipments received at the facility, the “Unit Coal Train Analysis” for Btu and sulfur content are the same for each unit at a given facility. Therefore, the “Monthly SO₂ Emission Rate, lbs SO₂/MMBtu” is the same for each unit at a given facility.

FIRST AMENDED EXHIBIT A Method for Determining Percent Reduction Revised May 2004

Under the Agreement, the Metro Units can comply with the SO₂ emission limitation by either emitting less than 10,500 tons per year or achieving a 70% reduction.¹ This Exhibit describes the method that the Division will employ to determine the percent reduction achieved by the Metro Units in each calendar year. If the Metro Units achieve a 70% reduction using this method, they will comply with the SO₂ emission limitation.

Summary

The percent reduction of SO₂ is calculated as follows:

$$\% \text{ Reduction} = 100 * (\text{Metrowide Uncontrolled SO}_2 \text{ Emission Rate} - \text{Metrowide Controlled SO}_2 \text{ Emission Rate}) / \text{Metrowide Uncontrolled SO}_2 \text{ Emission Rate}$$

- where: (1) Metrowide Uncontrolled SO₂ Emission Rate is determined from coal sulfur content data derived from each Metro Facility and includes imputed uncontrolled SO₂ emissions for the retired units (Arapahoe Units 1 and 2) based on an 82% capacity factor; and
- (2) Metrowide Controlled SO₂ Emission Rate is determined from the continuous emissions monitoring system (CEMS) certified under the requirements of Title 40 of the Code of Federal Regulations, Part 75 (40CFR75). These Part 75 CEMS are installed at the outlet of each unit to measure the SO₂ mass emissions from each unit.

A detailed description of these calculations is presented below.

1. Measurement of Coal Sulfur Content and Quantity of Coal Burned

¹ As used in this Exhibit, unless defined herein, capitalized terms have the same meaning given to them under the Agreement.

The total monthly tons of coal burned in each Metro Unit will be obtained for each unit from PSCo's monthly system operating report or FERC Form 423, or the equivalent. The sulfur content of the coal fed into the Metro Units is determined from the unit train coal sample analysis provided by each coal supplier with each unit train load of coal received during each calendar year covered by the Agreement. These coal samples are gathered according to the procedures specified in the purchase agreements between PSCo and each coal supplier. Each unit train coal sample analysis provides, among other things, the sulfur and BTU content on a per pound basis, for the coal delivered in each unit train.

2. Calculation of Uncontrolled SO₂ Emission Rate from Coal

The unit total monthly tons of coal will be matched, as nearly as possible, with the heat content (measured in BTUs per pound) determined from the unit train coal sample analysis. The total number of BTUs burned in each unit each month will be calculated as follows:

$$\text{Unit Total Monthly Coal BTU} = \text{Unit Total Monthly Tons of Coal} * \text{Unit Coal Train Sample Analysis in BTU/lb} * 2000 \text{ lbs/ton} = \text{BTU/Unit}$$

The uncontrolled monthly coal SO₂ emission rate is determined from the unit coal train sample analysis sulfur and BTU content, as follows:

$$\text{Unit Uncontrolled Monthly Coal SO}_2 \text{ Emission Rate} = [(1000000 \text{ BTU/MMBtu} * (2 \text{ lbs SO}_2 / \text{lb S}) * \text{Unit Coal Train Sample Analysis Sulfur Content}) / \text{Unit Coal Train Sample Analysis, BTU/lb}] = \text{lb SO}_2/\text{MMBtu}$$

Where 1000000 converts from BTU to million BTU (MMBtu) and 2 converts from sulfur to sulfur dioxide. The Unit Coal Train Sample Analysis Sulfur Content is expressed as a fraction, i.e. lb Sulfur / lb coal.

Finally, the uncontrolled tons of SO₂ are calculated as follows:

$$\text{Unit Monthly Uncontrolled Tons of SO}_2 = [(\text{Unit Uncontrolled Monthly SO}_2 \text{ Emission Rate} * \text{Unit Total Monthly Coal BTU}) / 1000000] * (1 \text{ ton}/2000 \text{ lb}) = \text{tons SO}_2/\text{Unit}$$

3. Accounting for the Effect of Arapahoe 1 and 2 Retirement

The Agreement specifies that Arapahoe Units 1 & 2 will be retired and the emissions reductions from this retirement credited to the calculation of the emissions reduction. This calculation requires the Division to impute a capacity factor, heatrate, and coal quality data for each of these units. The Division has agreed to impute a capacity factor of 82%, a heatrate of 12500 BTU/kWh², and an SO₂ emission rate based on the Unit Uncontrolled Monthly Coal SO₂ Emission Rate determined for Arapahoe Units 3 & 4:

Uncontrolled Arapahoe 1 or 2 SO₂ Tons of SO₂ = [(45000 kW) * (8760 hrs/yr) * (0.82) * 12500 BTU/kWh) * (MMBtu/1000000 BTU) * (Arapahoe Unit 3 and 4 Uncontrolled Monthly SO₂ Emission Rate, lb SO₂/MMBtu) * (1 ton/2000 lbs)] = Tons SO₂/yr. Where 45000 is the net effective capability of each of these units, 8760 is the number of hours in a year, 0.82 is the agreed to capacity factor, 12500 is an historical average heatrate for these units, 1000000 converts from BTU to MMBtu and 2000 converts from pounds to tons.

Twice this mass of SO₂ will be added to the Metrowide Total Annual Uncontrolled Tons of SO₂ calculated below, to account for the retirement of Arapahoe Units 1 and 2 (because they are the same size).

4. Calculation of Metrowide Uncontrolled SO₂ Emissions

² The heatrate represents an engineering estimate of the average operating heatrates of Arapahoe 1 and 2. It is comparable to the average of the heatrate for the two units as measured in 1997. See Exhibit B

The Metrowide Total Annual Uncontrolled Tons of SO₂ is calculated as the sum of each units Unit Monthly Uncontrolled Tons of SO₂, as follows:

Total Uncontrolled SO₂ Emissions = [Unit No. 1 Unit Monthly Uncontrolled Tons of SO₂ + Unit No. 2 Unit Monthly Uncontrolled Tons of SO₂ + etc...] + [2 * Uncontrolled Arapahoe 1 or 2 SO₂ Tons of SO₂] = Tons SO₂/year

5. Calculation of Metrowide Total Annual Coal BTU

The Metrowide Total Annual Coal BTU is calculated as the sum of each unit's Unit Total Monthly Coal BTU, as follows:

Metrowide Total Annual Coal BTU = [Unit No. 1 Unit Total Monthly Coal BTU + Unit No. 2 Unit Total Monthly Coal BTU + etc...] = BTU/year

6. Calculation of Metrowide Uncontrolled Emission Rate

The Metrowide Uncontrolled Emission Rate is calculated by dividing the Total Uncontrolled SO₂ Emissions by the Metrowide Total Annual Coal BTU.

Metrowide Uncontrolled SO₂ Emission Rate = [(Total Uncontrolled SO₂ Emissions * 2000 lb/ton) / (Metrowide Total Annual Coal BTU * 1 MMBtu/1000000BTU)] = lb SO₂/MMBtu

7. Measurement of Controlled SO₂ Emissions

The Metrowide Controlled Tons of SO₂ is determined as the sum of each Units Annual CEMS Tons of SO₂, as measured by each of the Part 75 CEMS installed on each of the units subject to the Agreement, as follows:

Metrowide Controlled Tons of SO₂ = [Unit No. 1 Annual CEMS Tons of SO₂ + Unit No. 2 Annual CEMS Tons of SO₂ + etc...] = Tons SO₂/year

8. Measurement of Total Annual Heat Input

The Metrowide Total Annual Heat Input is determined by the sum of each Units Annual CEMS Heat Input (in MMBtu/yr) as measured by each of the Part 75 CEMS installed on each of the units subject to the Agreement, as follows:

Metrowide Total Annual Heat Input = [Unit No. 1 Annual CEMS Heat Input + Unit No. 2 Annual CEMS Heat Input + etc...] = MMBtu/yr

9. Calculation of Metrowide Controlled SO₂ Emission Rate

The Metrowide Controlled SO₂ Emission Rate is calculated by dividing the Metrowide Controlled Tons of SO₂ by the Metrowide Total Annual Heat Input as measured by the CEMS as follows:

Metrowide Controlled SO₂ Emission Rate = (2000 * Metrowide Control Tons of SO₂) / Metrowide Total Annual Heat Input = lb SO₂/MMBtu

Where 2000 converts from tons to pounds.

10. Calculation of Percent Reduction

The Metrowide Annual Percent SO₂ Reduction is calculated from the Metrowide Uncontrolled SO₂ Emission rate and the Metrowide Controlled SO₂ Emission rate as follows:

$$\text{Metrowide Annual Percent SO}_2 \text{ Reduction} = 100 * [(\text{Metrowide Uncontrolled SO}_2 \text{ Emission Rate} - \text{Metrowide Controlled SO}_2 \text{ Emission Rate}) / \text{Metrowide Uncontrolled SO}_2 \text{ Emission Rate}] = \% \text{ Reduction}$$

Where 100 formats the calculation to a 0-100 % expression.

APPENDIX H

Compliance Assurance Monitoring Plan

I. Background

a. Emission Unit Description:

Unit 3, Babcock and Wilcox, Model No. RB344, Serial No. NY-771802, Front-Fired Boiler, Rated at 1,877 MMBtu/hr. Coal, Natural Gas, or Combination-Fired.

Unit 4, Combustion Engineering, Model No. 12465, Serial No. C400016, Tangentially Fired, Rated at 3,520 MMBtu/hr. Coal, Natural Gas, or Combination-Fired.

b. Applicable Regulation, Emission Limit, Monitoring Requirements:

Regulations: Operating Permit Condition 1.1 (Colorado Regulation No. 1, Section II.A.1.c)

Emission Limitations: PM 0.1 lb/MMBtu
(for each Boiler)

Monitoring Requirements: Visible Emissions (Opacity) and Preventative Maintenance

c. Control Technology:

Each boiler is equipped with a fabric filter dust collector (FFDC) to control particulate matter emissions generation from the combustion of coal. Each FFDC has a particulate removal efficiency greater than 99%.

II. Monitoring Approach

	Indicator 1	Indicator 2
I. Indicator	Visible Emissions (Opacity)	Preventative Maintenance
Measurement Approach	Opacity emissions will monitored by a Continuous Opacity Monitor (COM).	Internal inspections of the baghouses will be conducted semi-annually. Each baghouse is inspected visually for deterioration and areas of corrosion or erosion. The bags are inspected for holes and tears, and are repaired and replaced as necessary. Door seals are inspected for tightness.
II. Indicator Range	<p>An excursion is defined as an opacity value greater than 15% for 60 seconds or more. When this occurs, the last compartment to be cleaned in automatic cycle is investigated.</p> <p>An excursion is also defined as any 24-hour period in which the average opacity exceeds the baseline level established by the performance test required by Condition 1.1.2.</p> <p>The baseline opacities set by the August and September 2010 performance tests required by Condition 1.1.2 are as follows: Unit 3 - 6.5% and Unit 4 – 8,1%. These values serve as the baseline opacities until the next required performance tests as specified in Condition 1.1.2.</p> <p>In addition to the above, when an excursion occurs, the appropriate corrective action is made and repairs and/or replacements are made as necessary.</p> <p>A history of the corrective action(s) will be maintained at the facility and made available upon request.</p>	<p>An excursion is defined as failure to perform the semi-annual inspection within 60 days of its scheduled completion date.</p> <p>An excursion triggers an immediate inspection.</p>
III. Performance Criteria		
a. Data Representativeness	An increase in visible emissions (opacity) under steady-state operating conditions is an indirect indication of a potential increase in particulate matter emissions.	Internal inspections can be used to identify torn bags and/or bags with diminished integrity. Torn bags and/or bags with diminished integrity can be an indication of baghouse issues and potentially an increase in particulate matter emissions.

	Indicator 1	Indicator 2
b. Verification of Operational Status	Operational status shall be demonstrated through the continuous process on/off signal recorded by the Data Acquisition and Handling System (DAHS).	Documentation in plant records will serve as the verification that the semi-annual inspection has been performed.
c. QA/QC Practices and Criteria	The COM equipment and data quality assurance is in conformation with the applicable requirements in 40 CFR Part 60 and the internal CEM Quality Control/Quality Assurance program developed in accordance with 40 CFR Part 75.	Trained personnel perform inspections and maintenance using an established procedures and checklist. Such procedures and checklists shall be made available to the Division upon request.
d. Monitoring Frequency	Continuous	Semi-Annual
e. Data Collection Procedures	Opacity measurements will be performed in accordance with the requirements in 40 CFR Part 60 Subpart A § 60.13. The emissions data will be stored in the unit's DAHS.	Results of inspections and maintenance activities are recorded by the plant and made available upon request.
f. Averaging Time	COM data shall be reduced to 6-minute averages as required by 40 CFR Part 60 Subpart A § 60.13. All 6-minute averages in each 24-hour period (7 am to 7 am) will be averaged together to get a 24-hour average.	N/A

III. Justification

a. Background:

The pollutant specific emission units are two (2) coal-fired boilers, that can also burn natural gas or a combination of coal and natural gas. The boilers are equipped with FFDCs to control particulate matter emissions.

Particulate matter removal is accomplished by passing the flue gases through a porous fabric material. The solid particles buildup on the fabric surface to form a thin porous layer of solids. This layer works in conjunction with the fabric material to trap the particulate matter. According to the CAM plan submitted by the source, the baghouse manufacturer guarantees a particulate removal efficiency greater than 99%. The results of the performance tests conducted for these units are indicated below:

Unit	Particulate Matter Emissions (lbs/MMBtu)		
	Performance Test Result		Emission Limitation
	2003	2010	
Unit 3	0.01362	0.003	0.1
Unit 4	0.00724	0.0033	0.1

Note that the 24-hour opacity indicators included in the CAM plan are based on the 2010 performance tests.

b. Rationale for Selection of Performance Indicators

Monitoring of the baghouse operational parameters is intended to keep the baghouse operating within the manufacturer's specifications. Based on the manufacturer's guarantees and actual performance test data on these units, it can be concluded that when the baghouse emissions controls are operated as designed, particulate emissions are controlled to levels well below the applicable particulate emission standard. As such, the requirements of compliance assurance monitoring for particulate matter emissions from these units can be accomplished through the monitoring of the selected performance indicators. Monitoring these indicators will signal the potential need for corrective actions to avoid potential problems with any of these factors.

Potential issues in the operation of a baghouse that can compromise its ability to effectively control particulate emissions can generally be categorized as issues with torn and/or broken bags or seals, and characteristics of the ash cake on the bags. The indicators described below were selected for their ability to provide an indication or warning of potential problems with any of these factors.

Visible Emissions (Opacity)

Based on the relationship between particulate matter in a flue gas stream and opacity, an increase in opacity is a valid indication of increased particulate emissions due to compromised baghouse performance. Increased opacity emissions from typical levels, such as a sudden spike or a gradual increase are an indication that baghouse performance has decreased.

Preventative Maintenance

Preventative maintenance is performed on the baghouses to ensure that they are operated and maintained in accordance with the manufacturer's guidelines.

c. Rationale for Selection of Indicator Ranges

Visible emissions (opacity)

The source proposed that a spike in opacity, defined as an opacity reading greater than 15% for sixty (60) seconds or more is an indication of potential reduction in baghouse performance. In response to this indicator, the last compartment to be cleaned in automatic cycle is investigated.

The Division agrees that sudden spikes in opacity are a reasonable indicator that the baghouse operation may have been compromised. The 15% indicator is below the opacity limitations set for each unit. PSCo submitted information indicating that the 15% opacity indicator is based on operating experience. In their submittal, PSCo indicated that based on their years of operating experience an opacity spike of 15% opacity for 60 seconds or more is generally an indicator that there is a problem with the baghouse

and that an opacity spike below that set point would pick up spikes in opacity that are seen with normal operation. Although PSCo has not correlated 15% to a level of PM emissions, this is a short term (one minute or more) indicator of baghouse performance and as specified in 40 CFR Part 64 § 64.4(c)(1), emission testing is not required to be conducted over the indicator range or range of potential emissions. Given that the PM standard is based on the average of three one (1) hour tests and past performance tests indicate that the PM emissions are less than 50% of the standard, the short term 15% opacity indicator serves to provide an indication of proper baghouse operation and as such can be reasonable indicator that Units 3 and 4 are in compliance with the PM limitations.

Although the source proposed an indicator range of “an increase in opacity above baseline conditions during normal operations to opacity emissions greater than 10% over an extended period of time”, the Division considered such a range to be inappropriate, since neither the time period (i.e., averaging time) was defined and it was not clear how the 10% opacity related to the PM emission limitations. Specifically PSCo did not correlate the 10% opacity to a PM emission level, nor did they submit any performance test data with their CAM plan.

Therefore, the Division is including as CAM a 24-hr average opacity indicator, which is similar to the monitoring required for control devices (e.g. baghouses) used to meet the particulate matter standards under NSPS Da. For new (constructed after February 28, 2005) electric utility steam generating units NSPS Subpart Da specifies that a baseline opacity level be established and that any 24-hr average opacity value that exceeds the baseline level shall be cause for investigating the control device.

The 24-hr average opacity indicator range will be set in a manner similar to the methodology specified in 40 CFR Part 60 Subpart Da § 60.48Da(o)(2)(iii), which states that the baseline opacity is established during the performance test by averaging all 6-minute average opacity values from the COMS recorded during each of the test runs and then adding a 2.5% opacity to the calculated average opacity. If the NSPS Da baseline opacity (average during test run plus 2.5%) is less than 5%, then the baseline opacity is set at 5%. Since these units are subject to less stringent particulate matter standards than the NSPS Da standards for new units (0.1 lb/MMBtu vs. 0.015 lb/MMBtu), the Division is allowing an opacity value up to 5% to be added to the calculated opacity average from the performance test. The actual allowable opacity add-on is based on the results of the performance tests. Also, as provided for in NSPS Da, if the baseline opacity (COMS average plus add-on) is less than 5%, then the baseline opacity (i.e., the indicator range) is set at 5%.

Since the 24-hr opacity indicator is very similar to the control device monitoring required for new units under NSPS Da, the Division considers that the 24-hr opacity indicator is acceptable for CAM.

The Division intends to require that performance tests be conducted within 180 days of renewal permit issuance to demonstrate compliance with the PM emission limitation, therefore, the permit will require that PSCo set the baseline opacity during these tests. Although performance tests were conducted on these units in 2003 and information on opacity emissions during the tests may be available (PSCo is only required to retain monitoring data for five years after it is generated) and thus may be used to set the indicator range, the Division considers that it is more appropriate to set the indicator range on a more recent test. As indicated in 40 CFR Part 64 § 64.4(e)(2), if installation of equipment and/or performance

testing to set indicator ranges is necessary prior to performing the monitoring under CAM, then the schedule for completing installation and/or testing and beginning operation of the monitoring shall be as expeditiously as practicable but no longer than 180 days after approval of the permit. To that end, the permittee conducted performance tests in August (Unit 3) and September (Unit 4) of 2010 and began monitoring the 24-hour opacity averages consistent with the baseline values set in those tests. Since the renewal permit was issued in April 2010, the indicator ranges were set and monitoring commenced within 180 days of renewal permit issuance, as required by § 64.4(e)(2).

Preventative Maintenance

Although the source proposed to use monthly reviews of historic minute opacity data and that those reviews would be used to trigger repairs or corrective action. Since it isn't clear how these reviews would trigger repairs the Division considered that a more definitive measure for defining preventative maintenance would be semi-annual internal inspections of the baghouses. The Division would consider that failure to conduct semi-annual inspections may compromise the ability of the FFDCs to function as designed. As such, the Division is including in this CAM plan a requirement to perform internal inspections in order to ensure proper baghouse function and perform required repairs and maintenance of the bags as needed.

APPENDIX I

Retired Unit Exemption Forms

United States Environmental Protection Agency OMB Nos. 2060-0258, 2060-0570, and 2060-0667
Acid Rain, CAIR, and Transport Rule Programs Approval Expires 07/31/2014



Retired Unit Exemption

For more information, see instructions and refer to 40 CFR 72.8, 96.105, 96.205, 96.305, 97.405, 97.505, 97.605, and 97.705, or a comparable state regulation, as applicable.

This submission is: ☒ New ☐ Revised

STEP 1
Identify the unit by facility (source) name, State, ORIS/plant code and unit ID#.

Cherokee Station	CO	469	1
Facility (Source) Name	State	ORIS/Plant Code	Unit ID#

STEP 2
Indicate the program(s) that the unit is subject to

- | | |
|--|--|
| <input checked="" type="checkbox"/> Acid Rain | <input type="checkbox"/> Transport Rule NO _x Annual |
| <input type="checkbox"/> CAIR NO _x Annual | <input type="checkbox"/> Transport Rule NO _x Ozone Season |
| <input type="checkbox"/> CAIR SO ₂ | <input type="checkbox"/> Transport Rule SO ₂ Annual |
| <input type="checkbox"/> CAIR NO _x Ozone Season | |

STEP 3
Identify the date on which the unit was (or will be) permanently retired.

April 30, 2012

STEP 4
If the unit is subject to the Acid Rain Program, identify the first full calendar year in which the unit meets (or will meet) the requirements of 40 CFR 72.8(d).

January 1, 2013

STEP 5
Read the appropriate special provisions.

Acid Rain Program Special Provisions

- (1) A unit exempt under 40 CFR 72.8 shall not emit any sulfur dioxide and nitrogen oxides starting on the date that the exemption takes effect. The owners and operators of the unit will be allocated allowances in accordance with 40 CFR part 73 subpart B.
- (2) A unit exempt under 40 CFR 72.8 shall not resume operation unless the designated representative of the source that includes the unit submits a complete Acid Rain permit application under 40 CFR 72.31 for the unit not less than 24 months prior to the date on which the unit is first to resume operation.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 72.8 shall comply with the requirements of the Acid Rain Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) For any period for which a unit is exempt under 40 CFR 72.8, the unit is not an affected unit under the Acid Rain Program and 40 CFR part 70 and 71 and is not eligible to be an opt-in source under 40 CFR part 74. As an unaffected unit, the unit shall continue to be subject to any other applicable requirements under 40 CFR parts 70 and 71.
- (5) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 72.8 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Administrator or the permitting authority. The owners and operators bear the burden of proof that the unit is permanently retired.
- (6) On the earlier of the following dates, a unit exempt under 40 CFR 72.8(b) or (c) shall lose its exemption and become an affected unit under the Acid Rain Program and 40 CFR part 70 and 71: (i) the date on which the designated representative submits an Acid Rain permit application under paragraph (2); or (ii) the date on which the designated representative is required under paragraph (2) to submit an Acid Rain permit application. For the purpose of applying monitoring requirements under 40 CFR part 75, a unit that loses its exemption under 40 CFR 72.8 shall be treated as a new unit that commenced commercial operation on the first date on which the unit resumes operation.

EPA Form 7610-20 (Revised 8-2011)

Retired Unit Exemption

Page 2 of 5

CAIR NO_x Annual Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 96.105(a) shall not emit any nitrogen oxides, starting on the date that the exemption takes effect.
- (2) The permitting authority will allocate CAIR NO_x allowances under 40 CFR 96 subpart EE to a unit exempt under 40 CFR 96.105(a).
- (3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 96.105(a) shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (4) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.105(a) shall comply with the requirements of the CAIR NO_x Annual Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (5) A unit exempt under 40 CFR 96.105(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under 40 CFR 96.122 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2009 or the date on which the unit resumes operation.
- (6) On the earlier of the following dates, a unit exempt under 40 CFR 96.105(a) shall lose its exemption:
 - (i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under 40 CFR 96.105(b)(5);
 - (ii) The date on which the CAIR designated representative is required under 40 CFR 96.105(b)(5) to submit a CAIR permit application for the unit; or
 - (iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.
- (7) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 96 subpart HH, a unit that loses its exemption under 40 CFR 96.105(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

CAIR SO₂ Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 96.205(a) shall not emit any sulfur dioxide, starting on the date that the exemption takes effect.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 96.205(a) shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.205(a) shall comply with the requirements of the CAIR SO₂ Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 96.205(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under 40 CFR 96.222 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2010 or the date on which the unit resumes operation.
- (5) On the earlier of the following dates, a unit exempt under 40 CFR 96.205(a) shall lose its exemption:
 - (i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under 40 CFR 96.205(b)(4);
 - (ii) The date on which the CAIR designated representative is required under 40 CFR 96.205(b)(4) to submit a CAIR permit application for the unit; or
 - (iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.
- (6) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 96 subpart HH, a unit that loses its exemption under 40 CFR 96.205(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

Retired Unit Exemption

Page 3 of 5

CAIR NO_x Ozone Season Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 96.305(a) shall not emit any nitrogen oxides, starting on the date that the exemption takes effect.
- (2) The permitting authority will allocate CAIR NO_x Ozone Season allowances under 40 CFR 96 subpart EEEE to a unit exempt under 40 CFR 96.305(a). **Transport Rule NO_x Annual Trading Program Special Provisions**
- (1) A unit exempt under 40 CFR 97.405 shall not emit any NO_x, starting on the date that the exemption takes effect.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.405 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt 40 CFR 97.405 shall comply with the requirements of the TR NO_x Annual Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 97.405 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under this subpart, as a unit that commences commercial operation on the first date on which the unit resumes operation.

Transport Rule NO_x Annual Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 97.405 shall not emit any NO_x, starting on the date that the exemption takes effect.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.405 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt 40 CFR 97.405 shall comply with the requirements of the TR NO_x Annual Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 97.405 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under this subpart, as a unit that commences commercial operation on the first date on which the unit resumes operation.

Transport Rule NO_x Ozone Season Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 97.505 shall not emit any NO_x, starting on the date that the exemption takes effect.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.505 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.505 shall comply with the requirements of the TR NO_x Ozone Season Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 97.505 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under this subpart, as a unit that commences commercial operation on the first date on which the unit resumes operation.

Retired Unit Exemption

Page 4 of 5

Transport Rule SO₂ Group 1 Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 97.605 shall not emit any SO₂, starting on the date that the exemption takes effect.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.605 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.605 shall comply with the requirements of the TR SO₂ Group 1 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 97.605 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under this subpart, as a unit that commences commercial operation on the first date on which the unit resumes operation.

Transport Rule SO₂ Group 2 Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 97.705 shall not emit any SO₂, starting on the date that the exemption takes effect.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.705 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.705 shall comply with the requirements of the TR SO₂ Group 2 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 97.705 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under this subpart, as a unit that commences commercial operation on the first date on which the unit resumes operation.

EPA Form 7610-20 (Revised 8-2011)

Retired Unit Exemption

Page 5 of 5

STEP 6

Read the statement of compliance and the appropriate certification statements and sign and date.

Statement of Compliance

I certify that the unit identified above at STEP 1 was (or will be) permanently retired on the date identified at STEP 3 and will comply with the appropriate Special Provisions listed at STEP 5.

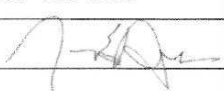
Certification (for Acid Rain, CAIR, or Transport Rule designated representatives or alternate Acid Rain, CAIR, or Transport Rule designated representatives only)

I am authorized to make this submission on behalf of the owners and operators of the source and unit for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name	Title
Owner Company Name	
Phone	Email
Signature	Date

Certification (for certifying officials of units subject to the Acid Rain Program only)

I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

George Hess	General Manager
Name	Title CO Power Generation
Public Service Company of Colorado	
Owner Company Name	
303-628-2679	George.Hess@xcelenergy.com
Phone	Email
Signature 	Date 6-18-12

EPA Form 7610-20 (Revised 8-2011)

Operating Permit Number: 96OPAD130

First Issued: 2/1/02
Renewed: 4/1/10
Last Revised: 2/10/14

United States Environmental Protection Agency OMB Nos. 2060-0258, 2060-0570, and 2060-0667
Acid Rain, CAIR, and Transport Rule Programs Approval Expires 07/31/2014



Retired Unit Exemption

For more information, see instructions and refer to 40 CFR 72.8, 96.105, 96.205, 96.305, 97.405, 97.505, 97.605, and 97.705, or a comparable state regulation, as applicable.

This submission is: ☒ New ☐ Revised

STEP 1
Identify the unit by facility (source) name, State, ORIS/plant code and unit ID#.

Cherokee Station	CO	469	2
Facility (Source) Name	State	ORIS/Plant Code	Unit ID#

STEP 2
Indicate the program(s) that the unit is subject to

- | | |
|--|--|
| <input checked="" type="checkbox"/> Acid Rain | <input type="checkbox"/> Transport Rule NO _x Annual |
| <input type="checkbox"/> CAIR NO _x Annual | <input type="checkbox"/> Transport Rule NO _x Ozone Season |
| <input type="checkbox"/> CAIR SO ₂ | <input type="checkbox"/> Transport Rule SO ₂ Annual |
| <input type="checkbox"/> CAIR NO _x Ozone Season | |

STEP 3
Identify the date on which the unit was (or will be) permanently retired.

October 15, 2011

STEP 4
If the unit is subject to the Acid Rain Program, identify the first full calendar year in which the unit meets (or will meet) the requirements of 40 CFR 72.8(d).

January 1, 2012

STEP 5
Read the appropriate special provisions.

Acid Rain Program Special Provisions

- (1) A unit exempt under 40 CFR 72.8 shall not emit any sulfur dioxide and nitrogen oxides starting on the date that the exemption takes effect. The owners and operators of the unit will be allocated allowances in accordance with 40 CFR part 73 subpart B.
- (2) A unit exempt under 40 CFR 72.8 shall not resume operation unless the designated representative of the source that includes the unit submits a complete Acid Rain permit application under 40 CFR 72.31 for the unit not less than 24 months prior to the date on which the unit is first to resume operation.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 72.8 shall comply with the requirements of the Acid Rain Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) For any period for which a unit is exempt under 40 CFR 72.8, the unit is not an affected unit under the Acid Rain Program and 40 CFR part 70 and 71 and is not eligible to be an opt-in source under 40 CFR part 74. As an unaffected unit, the unit shall continue to be subject to any other applicable requirements under 40 CFR parts 70 and 71.
- (5) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 72.8 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Administrator or the permitting authority. The owners and operators bear the burden of proof that the unit is permanently retired.
- (6) On the earlier of the following dates, a unit exempt under 40 CFR 72.8(b) or (c) shall lose its exemption and become an affected unit under the Acid Rain Program and 40 CFR part 70 and 71: (i) the date on which the designated representative submits an Acid Rain permit application under paragraph (2); or (ii) the date on which the designated representative is required under paragraph (2) to submit an Acid Rain permit application. For the purpose of applying monitoring requirements under 40 CFR part 75, a unit that loses its exemption under 40 CFR 72.8 shall be treated as a new unit that commenced commercial operation on the first date on which the unit resumes operation.

EPA Form 7610-20 (Revised 8-2011)

Operating Permit Number: 96OPAD130

First Issued: 2/1/02
Renewed: 4/1/10
Last Revised: 2/10/14

Retired Unit Exemption

Page 2 of 5

CAIR NO_x Annual Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 96.105(a) shall not emit any nitrogen oxides, starting on the date that the exemption takes effect.
- (2) The permitting authority will allocate CAIR NO_x allowances under 40 CFR 96 subpart EE to a unit exempt under 40 CFR 96.105(a).
- (3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 96.105(a) shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (4) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.105(a) shall comply with the requirements of the CAIR NO_x Annual Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (5) A unit exempt under 40 CFR 96.105(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under 40 CFR 96.122 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2009 or the date on which the unit resumes operation.
- (6) On the earlier of the following dates, a unit exempt under 40 CFR 96.105(a) shall lose its exemption:
 - (i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under 40 CFR 96.105(b)(5);
 - (ii) The date on which the CAIR designated representative is required under 40 CFR 96.105(b)(5) to submit a CAIR permit application for the unit; or
 - (iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.
- (7) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 96 subpart HH, a unit that loses its exemption under 40 CFR 96.105(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

CAIR SO₂ Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 96.205(a) shall not emit any sulfur dioxide, starting on the date that the exemption takes effect.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 96.205(a) shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.205(a) shall comply with the requirements of the CAIR SO₂ Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 96.205(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under 40 CFR 96.222 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2010 or the date on which the unit resumes operation.
- (5) On the earlier of the following dates, a unit exempt under 40 CFR 96.205(a) shall lose its exemption:
 - (i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under 40 CFR 96.205(b)(4);
 - (ii) The date on which the CAIR designated representative is required under 40 CFR 96.205(b)(4) to submit a CAIR permit application for the unit; or
 - (iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.
- (6) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 96 subpart HHH, a unit that loses its exemption under 40 CFR 96.205(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

Retired Unit Exemption

Page 3 of 5

CAIR NO_x Ozone Season Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 96.305(a) shall not emit any nitrogen oxides, starting on the date that the exemption takes effect.
- (2) The permitting authority will allocate CAIR NO_x Ozone Season allowances under 40 CFR 96 subpart EEEE to a unit exempt under 40 CFR 96.305(a). **Transport Rule NO_x Annual Trading Program Special Provisions**
- (1) A unit exempt under 40 CFR 97.405 shall not emit any NO_x, starting on the date that the exemption takes effect.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.405 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt 40 CFR 97.405 shall comply with the requirements of the TR NO_x Annual Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 97.405 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under this subpart, as a unit that commences commercial operation on the first date on which the unit resumes operation.

Transport Rule NO_x Annual Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 97.405 shall not emit any NO_x, starting on the date that the exemption takes effect.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.405 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt 40 CFR 97.405 shall comply with the requirements of the TR NO_x Annual Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 97.405 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under this subpart, as a unit that commences commercial operation on the first date on which the unit resumes operation.

Transport Rule NO_x Ozone Season Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 97.505 shall not emit any NO_x, starting on the date that the exemption takes effect.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.505 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.505 shall comply with the requirements of the TR NO_x Ozone Season Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 97.505 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under this subpart, as a unit that commences commercial operation on the first date on which the unit resumes operation.

Retired Unit Exemption

Page 4 of 5

Transport Rule SO2 Group 1 Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 97.605 shall not emit any SO₂, starting on the date that the exemption takes effect.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.605 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.605 shall comply with the requirements of the TR SO₂ Group 1 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 97.605 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under this subpart, as a unit that commences commercial operation on the first date on which the unit resumes operation.

Transport Rule SO2 Group 2 Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 97.705 shall not emit any SO₂, starting on the date that the exemption takes effect.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.705 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.705 shall comply with the requirements of the TR SO₂ Group 2 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 97.705 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under this subpart, as a unit that commences commercial operation on the first date on which the unit resumes operation.

Retired Unit Exemption

Page 5 of 5

STEP 6

Read the statement of compliance and the appropriate certification statements and sign and date.

Statement of Compliance

I certify that the unit identified above at STEP 1 was (or will be) permanently retired on the date identified at STEP 3 and will comply with the appropriate Special Provisions listed at STEP 5.

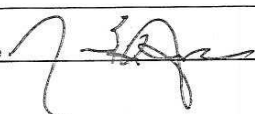
Certification (for Acid Rain, CAIR, or Transport Rule designated representatives or alternate Acid Rain, CAIR, or Transport Rule designated representatives only)

I am authorized to make this submission on behalf of the owners and operators of the source and unit for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name		Title	
Owner Company Name			
Phone		Email	
Signature			Date

Certification (for certifying officials of units subject to the Acid Rain Program only)

I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

George Hess		General Manager	
Name		Title CO Power Generation	
Public Service Company of Colorado			
Owner Company Name			
303-628-2679		George.Hess@xcelenergy.com	
Phone		Email	
Signature 			Date 3-19-12

EPA Form 7610-20 (Revised 8-2011)